

Rocky Flats Environmental Technology Site

Quarterly Environmental Monitoring Report

October - December 1996

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Publisher:

Rocky Mountain Remediation Services, L.L.C.

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Rocky Flats Environmental Technology Site Quarterly Environmental Monitoring Report

October - December Highlights

This report is produced and distributed quarterly as part of our ongoing Agreement in Principle an appropriate forum for the Rocky Flats Cleanup Agreement (RFCA) quarterly reporting requirement. Additional information about quarterly reporting will be formalized after completion of the Integrated Monitoring Plans (IMP) for the various media sampled.

Airborne Effluent

Minimal isotopic analytical data for fourth quarter 1996 are presented in this report. Analyses for most effluent samples were delayed as a result of the additional ambient sampling analyses requested for the T3 - T4 characterization. Completed isotopic data will be reported when available. There continue to be problems with reporting tritium data from the laboratories. No new tritium data were available at the time of reporting. All incomplete tritium data will be reported when they becomes available. All reported data are within typical and expected ranges.

Ambient Air

The composite data for fourth quarter 1996 are included in this report. Ambient samples are now being analyzed for Plutonium and Uranium. These results are reported in Tables 1-4 through 1-9. Fourth quarter 1996 samples were analyzed monthly to help characterize T3 - T4 impacts. Data for December 1996 were completed in time for this report as a result of the special ambient samples analyses. Incomplete data will be reported when it becomes available.

Special isotopic analyses performed to characterize T3 - T4 impacts are included in Appendix A, Special Reporting. All reported data are within expected ranges.

Meteorology and Climatology

Meteorological data are routinely measured from instrumentation on a 61-meter (200-foot) tower located in the west buffer zone at an elevation of 1,870 meters (6,140 feet) above sea level. The Climatic Summary for October through December 1996, are shown. The compass points and Windsor's displaying the frequencies of wind direction and speed illustrate the large diurnal wind changes. The tables showing wind direction frequency have been dropped. The data is summarized graphically in the wind roses.

Several time periods of missing meteorological data included in this report are summarized as follows:

October 1996

October 1 from 1400 to 1815
October 1 from 1815 to 1930
October 14 from 0900 to 1315
October 22 from 0915 to 2215
October 23 from 1615 to 1645
October 25 from 0600 to 0645
October 29 from 0615 to October 30 at 0645

The October 14 outage was the result of work being performed on the tower's power supply.

November 1996

November 12 from 1515 to 1615
November 22 from 0845 to 0930
November 27 from 0945 to 1230

December 1996

December 2 from 0345 to December 4 at 0830
December 5 1500 to 1530
December 8 from 1430 to 1515
December 8 from 1600 to 1645
December 8 from 1745 to 1815
December 9 from 0945 to 1030
December 9 from 1100 to 1145
December 9 from 1215 to 1345
December 9 from 1415 to 1500
December 9 from 1515 to December 10 at 0800
December 10 from 1100 to 1130
December 20 from 1330 to 1430

The cause of all other failures is unknown. RFETS maintains a backup meteorological system for emergency preparedness purposes which is automatically used when there are no data from the 61-meter tower.

Surface Water

Surface water analytical data for fourth quarter 1996 are included in this report. No notices of violation (NOV's) were issued by the permitting agency for the Site National Pollutant Elimination Discharge System (NPDES) permit during the reporting period. On October 29, 1996, extremely strong wind conditions caused the closure of the Site. As a result of the closure, no sampling for NPDES permit compliance was performed. The Environmental Protection Agency (EPA) was notified by telephone on October 29, 1996 of the Site's inability to collect the required samples and the weather conditions causing the missed samples. The DOE followed up with notification in writing of the conditions at the Site and a summary of the missed samples. All required NPDES sampling was performed without incident on October 30, 1996.

Tables detailing daily surface water flow from North and South Walnut Creek will no longer be included in this section. Flow monitoring data for these locations can be now found in the Hydrologic - Rocky Flats Clean-up Agreement (RFCA) section. Similarly, daily surface water flow from Pond C-1 will no longer be included in this section, but will be represented by flow measured at GS02 (Mower Creek and Indiana) and included in the Hydrologic - RFCA section.

Hydrologic - Rocky Flats Clean-up Agreement (RFCA)

This new section includes flow monitoring data collected in support of Hydrologic monitoring (formerly performed by the USGS) and RFCA. Water quality sampling required by RFCA are also included in this section, as well as a Site map detailing all the monitoring stations. A short narrative for each location and the program(s) for which the Site is monitored are included with the hydrographs for each site. No exceedances of the 30-day moving averages for Points of Compliance or the Action Level Framework were observed for the available reported data.

Groundwater

There is an error in Table 5-4 which presents the Volatile Organic Data for groundwater for the Boundary Wells. Exceedances are reported for volatile organic compounds (VOC) in wells 06491 (sampled August 19, 1996), 10394 (sampled August 26, 1996), 06491 (sampled November 11, 1996), and 41591 (sampled November 25, 1996). These high values are in fact the percent recovery on matrix spikes run as part of the laboratory quality assurance/quality control (QA/QC) process and are not actual results for these compounds. A check of the actual concentrations of volatile organics for these wells show that all analyses are at or below the detection limit.

Boundary well data for second, third, and fourth quarter 1996 are included in this report. The groundwater monitoring program at the Site has had significant changes resulting from the DQO evaluation process begun in 1996. The Action Level Framework portion of RFCA has stipulated action levels for groundwater and surface water. In addition, CDPHE and EPA have approved a reduced list of monitoring wells to be sampled and a semi-annual sampling frequency for all wells on Site. The analyte suites for each well has also been customized with a specified suite of required analyses for each well. Changes to the groundwater monitoring program that impact the boundary monitoring wells program are detailed below.

Boundary wells 0386, 06491, 41591, 41691, 10294, and 10394 will be monitored on a semi-annual basis as stated above. Because of the semiannual sampling schedule for the groundwater project, these boundary wells may be sampled anytime within a six month period rather than on a strictly quarterly basis. Therefore, the quarterly reporting for the boundary wells will only include data that has been received for wells that were sampled in that particular quarter of the six month period.

Exceedances of RFCA action levels for all wells at the Site will be reported in the new Quarterly RFCA report for groundwater. The RFCA groundwater report for the third quarter 1996 was completed in January. No exceedances of Tier II action levels were detected in the boundary wells. Additional information on groundwater sampling results can be found in this new report.



Section 1: Air Data

Table 1-1 Plutonium and Americium Airborne Effluent Data

Month	Plutonium-239		Americium-241	
	Release (μCi)	C Maximum (pCi/m ³)	Release (μCi)	C Maximum (pCi/m ³)
CY 1995				
January – December	0.3395 ± 0.0186	0.0064 ± 0.0006	0.1314 ± 0.0112	0.0004 ± 0.001
CY 1996				
January	0.0058± 0.0007 ^a	0.0015 ^a 0.0001 0.0000	± 0.0000 ^a	0.0004±
February	0.0210± 0.0021	0.00430.0001 0.0000	± 0.0000	0.0116±
March (2/ 12 - 3/ 11) ^b	0.0038± 0.0021 ^c	0.00110.0000 0.0000	± 0.0000	0.0026±
March 3/ 11 - 3/ 28) ^b	0.0027± 0.0013	0.00110.0000 0.0000	± 0.0000	0.0009±
April	0.6043± 0.0217	0.08610.0036 0.0001	± 0.0004	0.1205±
May	0.0203± 0.0017	0.00350.0001 0.0000	± 0.0000	0.0052±
June	0.0073± 0.0015	0.00150.0000 0.0000	± 0.0000	0.0019±
July	0.0051± 0.0004 ^d	0.00110.0001 0.0000	± 0.0000	0.0017±

^a Results from six locations are missing. No sample remains for repeat analysis. Results are final.

^b Effluent sampling for Pu, Am, and U was changed from a mid month composite schedule to an end of month composite schedule.

^c Results from five locations are missing. No sample remains for repeat analysis. Results are final.

Table 1-2 Uranium Airborne Effluent Data

Month	Uranium-233, -234		Uranium-238	
	Release (μCi)	C Maximum (pCi/m ³)	Release (μCi)	C Maximum (pCi/m ³)
CY 1995				
Jan – Dec	1.2703 ± 0.0428	0.0005 ± 0.0001	0.5026 ± 0.0446	0.0007 ± 0.0001
CY 1996				
January	0.0013± 0.0052 ^a	0.0050 ^a 0.0000 0.0000 ^a	± 0.0000 ^a	0.0048±
February	0.0385± 0.0059	0.00540.0001 0.0000	± 0.0000	0.0474±
March (2/ 12 - 3/ 11) ^b	0.0103± 0.0047	0.00470.0001 0.0000	± 0.0000	0.0112±
March 3/ 11 - 3/ 28) ^b	0.0160 0.0148 ± 0.0034	± 0.0032 0.0000±	0.0000± 0.0000	0.0000-
April	0.0316± 0.0072	0.00670.0004 0.0001	± 0.0001	0.0354±
May	0.0349± 0.0066	0.00610.0001 0.0000	± 0.0000	0.0390±
June	0.0427± 0.0065	0.00610.0001 0.0000	± 0.0000	0.0435±
July	0.0423±	0.00700.0001	± 0.0000	0.0430±

^a Results from six locations are missing. No sample remains for repeat analysis. Results are final.

^b Effluent sampling for Pu, Am, and U was changed from a mid month composite schedule to

Table 1-3 Tritium and Beryllium Airborne Effluent Data

Month	Tritium		Beryllium	
	Release (μCi)	C Maximum (pCi/m^3)	Release (g)	C Maximum ($\mu\text{g}/\text{m}^3$)
CY 1995				
Jan – Dec	6.269	227 \pm 27	2.4761 ^a	0.0004 ^a
CY 1996				
January	1.352 ^b	59 \pm 9 ^b	0.0152 \pm 0.0013	0.0002 \pm 0.0000
February	0.285 ^b	74 \pm 5 ^b	0.0887 \pm 0.0079	0.0003 \pm 0.0000
March	0.767	218 \pm 19	c	c
April	0.909	47 \pm 13	c	c
May	0.489	51 \pm 5	c	c
June	0.086 ^d	44 \pm 7 ^d	c	c
July	0.399 ^e	65 \pm 14 ^e	c	c
August	f	f	c	c
September	0.086 ^g	67 \pm 5 ^g	c	c
October	f	f	c	c
November	f	f	c	c
December	f	f	c	c
Year to Date	4.373	218 \pm 19	N/ A	N/ A

^a Error terms unavailable.

^b One sample is missing. No sample remains for repeat analysis. Results are final.

^c No beryllium analyses will be performed in the future unless activities at the Site indicate potential beryllium release. However, samples will be maintained for 2 years in the event analyses are deemed necessary at a later date.

^d Six samples are missing because of incomplete lab analysis. Data will be reported when it becomes available.

^e Forty-eight samples are missing because of incomplete lab analysis. Data will be reported when it becomes available.

^f No data is reported because of incomplete lab analysis. Data will be reported when it

Figure 1-1 Location of Onsite and Perimeter Air Samples

Table 1-4 Plutonium-239 Concentrations in Ambient Air for Onsite Samplers^a

Location	On Date	Off Date	Flow (m ³)	Fine Conc (pCi/m ³)	Fine Error (pCi/m ³)	Coarse Conc (pCi/m ³)	Coarse Error (pCi/m ³)	Total Conc (pCi/m ³)	Total Error (pCi/m ³)
S-107	10/1/96	11/4/96	44497	0.00001220	0.0000031		0.00005890	0.0000121	
				0.00007110	0.0000125				
S-107	11/4/96	12/2/96	36735	0.00004660	0.0000070		0.00004840	0.0000105	
				0.00009500	0.0000126				
S-107			b	b	b	b	b	b	b
S-007	10/1/96	11/4/96	43983					0.0000412	

^a These data have not been corrected for temperature.
^b Data is unavailable because of incomplete laboratory sample analysis. Results will be reported when available.
 N/A= Not Applicable

Table 1-5 Plutonium -239 Concentrations in Ambient Air for Perimeter Samplers^a

Location	On Date	Off Date	Flow (m ³)	Fine Conc (pCi/m ³)	Fine Error (pCi/m ³)	Coarse Conc (pCi/m ³)	Coarse Error (pCi/m ³)	Total Conc (pCi/m ³)	Total Error (pCi/m ³)
S-138	10/1/96	11/5/96	45277	0.00000050	0.00000040	0.00000140	0.00000170	0.0000019	
				0.0000017					
S-138	11/5/96	12/5/96	38933	0.00000070	0.0000007	0.00000020	0.00000170	0.0000005	
				0.0000019					
S-138			b	b	b	b	b	b	b
S-207	10/1/96	11/6/96	46891	0.00000090	0.00000080	0.00000010	0.00000060	0.0000009	
				0.0000010					
S-207	11/6/96	12/5/96	38022	0.00000050	0.00000090	0.00000060	0.00000130	0.0000011	
				0.0000016					
S-207			b	b	b	b	b	b	b

^a These data have not been corrected for temperature.
^b Data is unavailable because of incomplete laboratory sample analysis. Results will be reported when available.
 N/A= Not Applicable

Table 1-6 Uranium-233, -234 Concentrations in Ambient Air for Onsite Samplers^a

Location	On Date	Off Date	Flow (m ³)	Fine Conc (pCi/m ³)	Fine Error (pCi/m ³)	Coarse Conc (pCi/m ³)	Coarse Error (pCi/m ³)	Total Conc (pCi/m ³)	Total Error (pCi/m ³)
S-107	10/1/96	11/4/96	44497	0.00000670	0.0000071		0.00002030	0.0000040	
				0.00002700	0.0000081				
S-107	11/4/96	12/2/96	47927	0.00000350	0.0000060		0.00001190	0.0000027	
				0.00001540	0.0000066				
S-107			b	b	b	b	b	b	b
S-007	10/1/96	11/4/96	43983					0.0000418	

^a These data have not been corrected for temperature.
^b Data is unavailable because of incomplete laboratory sample analysis. Results will be reported when available.
 N/A= Not Applicable

Table 1-7 Uranium-233, -234 Concentrations in Ambient Air for Perimeter Samplers^a

Location	On Date	Off Date	Flow (m ³)	Fine Conc (pCi/m ³)	Fine Error (pCi/m ³)	Coarse Conc (pCi/m ³)	Coarse Error (pCi/m ³)	Total Conc (pCi/m ³)	Total Error (pCi/m ³)
S-138	10/1/96	11/5/96	45277	0.00000380	0.00000570	0.00001320	0.00000350	0.0000170	
				0.0000067					
S-138	11/5/96	12/5/96	38933	0.00000170	0.00000710	0.00001250	0.00000310	0.0000142	
				0.0000078					
S-138			b	b	b	b	b	b	b
S-207	10/1/96	11/6/96	46891	0.00000730	0.00000620	0.00001790	0.00000390	0.0000252	
				0.0000073					
S-207	11/6/96	12/5/96	38022	0.00000100	0.00000690	0.00001800	0.00000390	0.0000190	
				0.0000080					
S-207			b	b	b	b	b	b	b

^a These data have not been corrected for temperature.
^b Data is unavailable because of incomplete laboratory sample analysis. Results will be reported when available.
 N/A= Not Applicable

Table 1-8 Uranium-238 Concentrations in Ambient Air for Onsite Samplers^a

Location	On Date	Off Date	Flow (m ³)	Fine Conc (pCi/m ³)	Fine Error (pCi/m ³)	Coarse Conc (pCi/m ³)	Coarse Error (pCi/m ³)	Total Conc (pCi/m ³)	Total Error (pCi/m ³)
S-107	10/1/96	11/4/96	44497	0.00001120	0.0000073		0.00003650	0.000059	
				0.00004760	0.0000094				
S-107	11/4/96	12/2/96	36735	0.00000560	0.0000077		0.00003070	0.000054	
				0.00003630	0.0000094				
S-107				b	b	b	b	b	b
S-007	10/1/96	11/4/96	43983					0.0000368	

^a These data have not been corrected for temperature.
^b Data is unavailable because of incomplete laboratory sample analysis. Results will be reported when available.
 N/A= Not Applicable

Table 1-9 Uranium-238 Concentrations in Ambient Air for Perimeter Samplers^a

Location	On Date	Off Date	Flow (m ³)	Fine Conc (pCi/m ³)	Fine Error (pCi/m ³)	Coarse Conc (pCi/m ³)	Coarse Error (pCi/m ³)	Total Conc (pCi/m ³)	Total Error (pCi/m ³)
S-138	10/1/96	11/5/96	45277	0.00000430	0.00000550	0.00001540	0.00000380	0.0000197	
				0.0000067					
S-138	11/5/96	12/5/95	38933	-0.00000050	0.00000660	0.00001700	0.00000370	0.0000164	
				0.0000076					
S-138				b	b	b	b	b	b
S-207	10/1/96	11/6/96	46891	0.00000940	0.00000610	0.00002240	0.00000440	0.0000318	
				0.0000076					
S-207	11/6/96	12/5/96	38022	0.00000700	0.00000710	0.00002050	0.00000420	0.0000275	
				0.0000083					
S-207				b	b	b	b	b	b

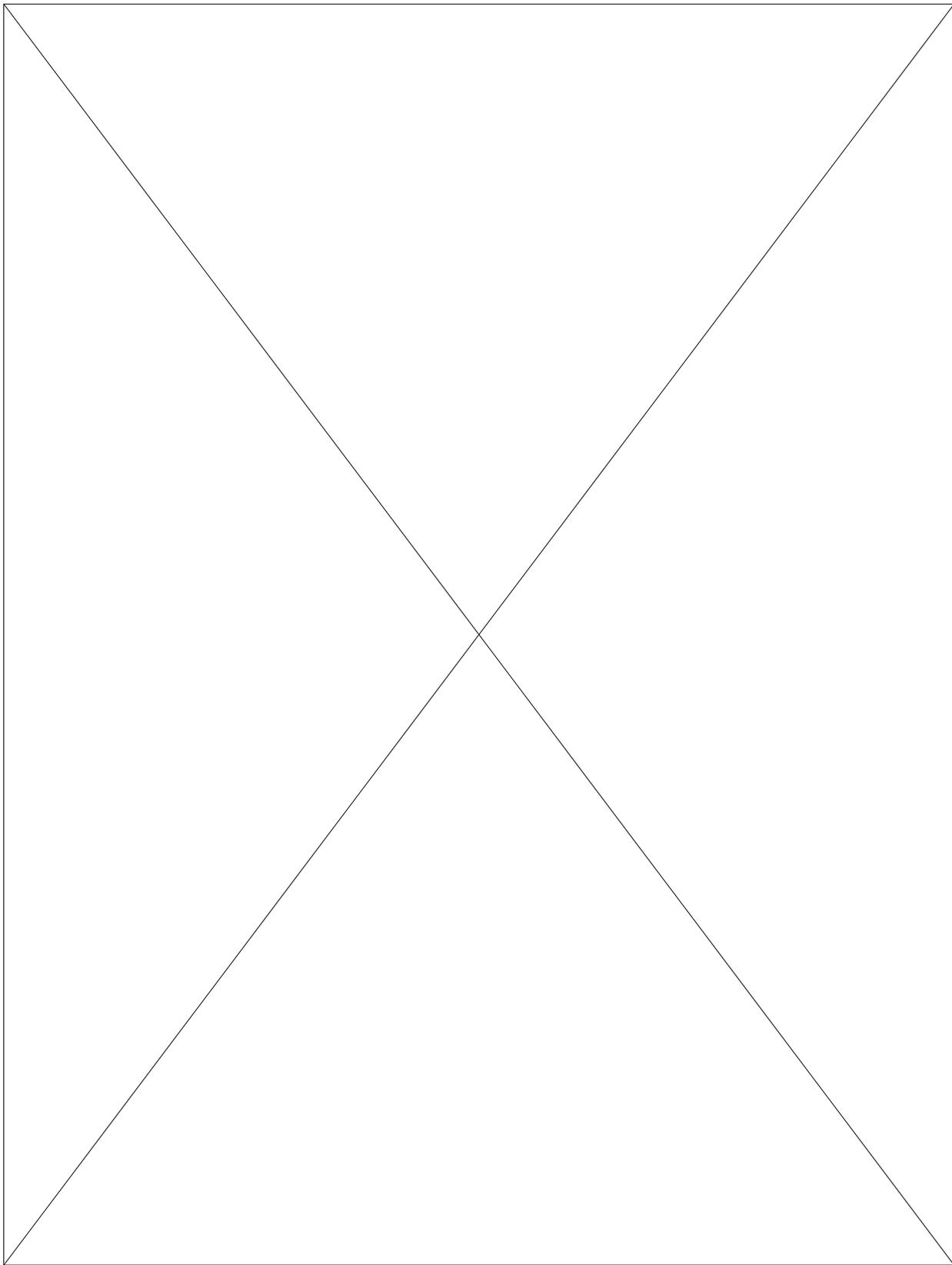
^a These data have not been corrected for temperature.
^b Data is unavailable because of incomplete laboratory sample analysis. Results will be reported when available.
 N/A= Not Applicable

Section 2: Meteorology and Climatology

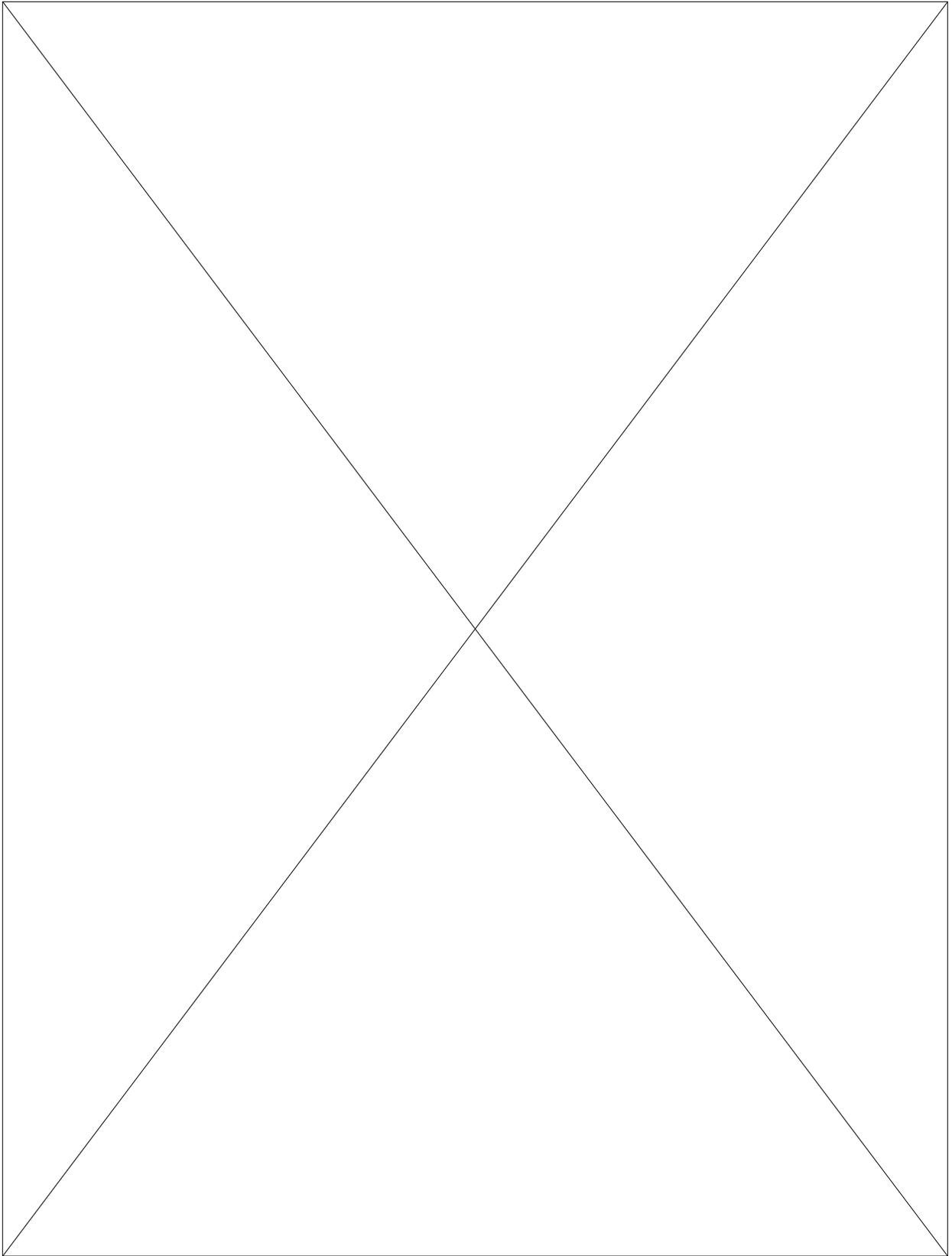
Table 2-1 Climatic Summary for October 1996

Date	Temperature (°F)			Dew-Point (°F)	Rel. Hum. (%)	Wind Speed (mph)		Press (mb)	Solar (kW-h/m ²)	Water-Equiv Precip (in.)	
	High	Low	Mean	Mean	Mean	Mean	Peak Gust (1 sec)	Mean	Total	Total	Peak Total (15 min)
10/1	80.13	51.48	64.26	28.84	27.63	12.92	35.44	813.76	4.55	0.00	0.00
10/2	57.61	39.28	47.89	42.15	81.19	6.90	30.51	820.64	2.32	0.00	0.00
10/3	66.49	36.41	52.04	43.03	73.38	5.93	19.87	816.76	4.60	0.00	0.00
10/4	69.98	42.87	56.86	42.49	60.89	6.78	13.76	816.55	4.99	0.00	0.00
10/5	76.08	45.27	62.54	37.46	42.43	6.02	19.33	815.95	5.42	0.00	0.00
10/6	68.85	42.26	56.44	38.24	52.36	6.78	18.93	818.83	5.34	0.00	0.00
10/7	66.16	37.92	51.89	40.29	68.04	6.79	22.29	817.88	4.88	0.00	0.00
10/8	72.00	41.36	56.24	34.60	48.15	5.40	15.45	816.57	5.22	0.00	0.00
10/9	69.13	39.70	53.86	33.59	49.42	6.37	15.45	819.41	5.10	0.00	0.00
10/10	79.83	34.77	58.73	34.18	45.02	6.48	19.76	817.37	5.12	0.00	0.00
10/11	83.95	46.36	69.35	25.74	20.58	9.36	36.09	814.82	5.08	0.00	0.00
10/12	79.74	53.10	67.81	28.47	23.70	8.85	36.09	815.99	4.91	0.00	0.00
10/13	78.89	45.93	64.00	27.70	26.59	7.48	22.29	815.13	5.06	0.00	0.00
10/14	72.36	43.31	59.75	28.21	32.11	10.21	38.82	813.96	1.67	0.00	0.00
10/15	70.61	39.50	54.93	26.73	37.17	7.46	18.50	811.45	4.34	0.00	0.00
10/16	59.67	31.03	47.25	26.20	47.74	14.63	56.40	807.01	2.76	0.03	0.02
10/17	45.37	20.62	35.12	9.22	37.81	20.09	57.23	814.41	4.94	0.00	0.00
10/18	69.28	22.95	49.64	14.55	27.63	7.76	33.02	809.75	4.93	0.00	0.00
10/19	71.60	33.74	54.42	25.63	36.63	8.79	38.39	799.68	3.79	0.00	0.00
10/20	42.35	24.69	34.48	22.44	66.91	10.29	29.55	806.03	2.53	0.20	0.04
10/21	40.62	20.75	30.71	11.93	46.93	7.02	24.19	814.19	4.23	0.00	0.00
10/22	57.04	23.49	43.24	10.91	26.50	17.51	40.92	810.57	3.92	0.00	0.00
10/23	55.35	32.43	44.30	19.89	38.52	5.87	18.82	808.96	2.60	0.00	0.00
10/24	59.77	28.01	45.90	20.30	40.06	10.94	42.29	802.79	2.63	0.00	0.00
10/25	54.09	31.86	42.98	26.50	52.91	8.80	24.08	795.26	2.89	0.00	0.00
10/26	49.68	26.12	35.75	25.22	67.40	17.07	67.56	805.65	2.60	0.22	0.05
10/27	48.36	21.29	32.94	27.71	82.06	5.50	16.51	818.17	3.08	0.00	0.00
10/28	60.48	26.27	44.33	30.67	62.50	7.17	43.12	808.90	3.46	0.00	0.00
10/29	48.13	35.32	41.90	21.41	44.02	43.06	87.45	792.78	0.00	0.01	0.01
10/30	38.14	25.72	32.27	29.48	89.32	7.94	22.60	812.53	1.62	0.00	0.00
10/31	32.26	22.73	27.30	27.11	99.27	5.13	13.24	811.67	0.45	0.00	0.00

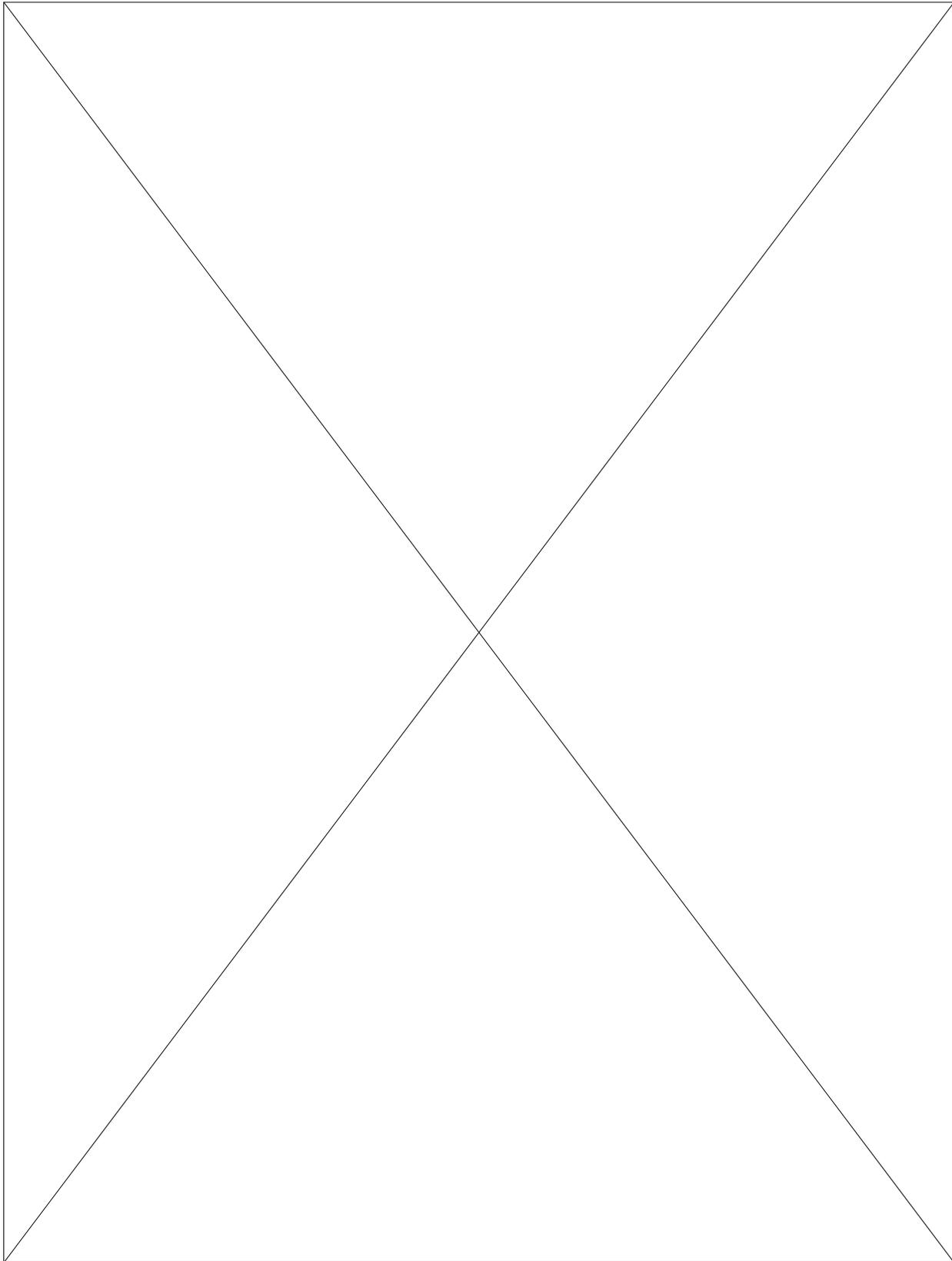
Temperature (°F)			Humidity		Wind Speed		Press	Solar	Precipitation	
Mean High	Mean Low	Mean	Dew Point	Rel. Hum.	Mean (mph)	Monthly Max	Monthly Avg	Monthly Total	Total	Monthly Max
62.1	34.4	49.0	27.8	50.2	10.0	87.4	811.7	115.0	0.5	0.1



***Figure 2-1 Windrose for the Rocky Flats Environmental Technology Site
(October 1996)***



*Figure 2-2 Day Windrose for the Rocky Flats Environmental Technology Site
(October 1996)*

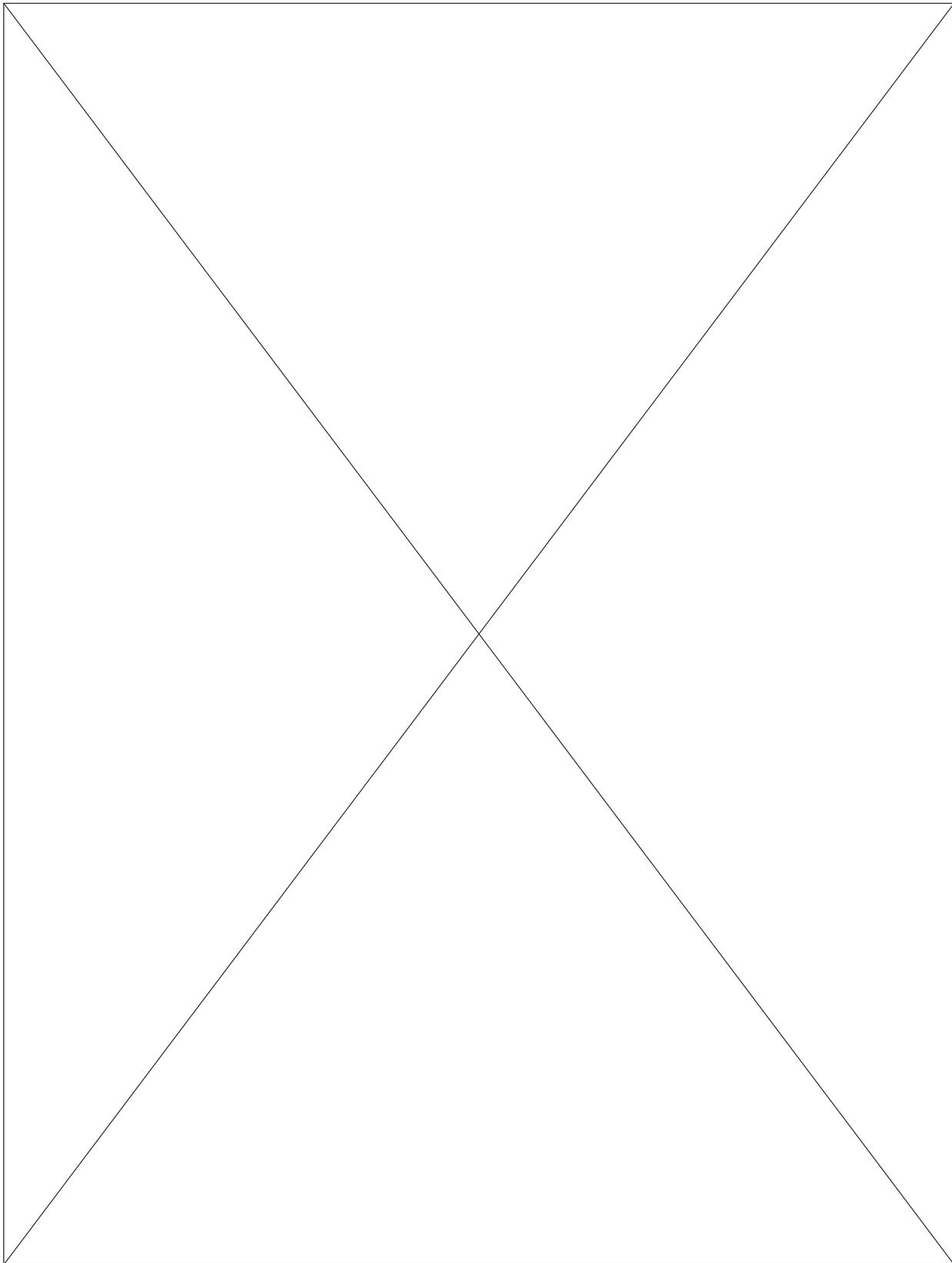


***Figure 2-3 Night Windrose for the Rocky Flats Environmental Technology Site
(October 1996)***

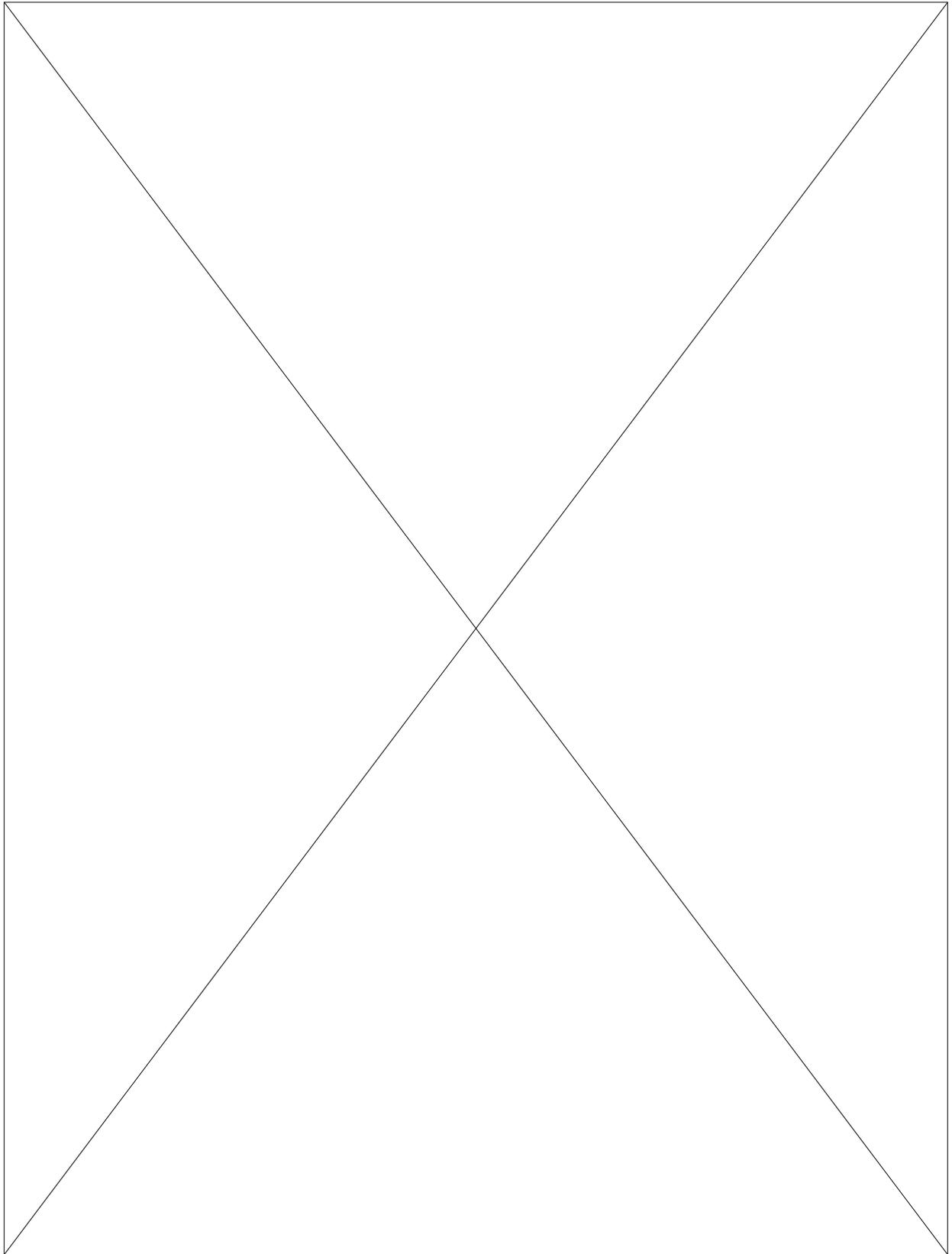
Table 2-2 Climatic Summary for November 1996

Date	Temperature (°F)			Dew-Point (°F)	Rel. Hum. (%)	Wind Speed (mph)		Press (mb)	Solar (kW-h/m ²)	Water-Equiv Precip (in.)	
	High	Low	Mean	Mean	Mean	Mean	Peak Gust (1 sec)	Mean	Total	Total	Peak (15 min)
11/1	52.65	23.29	36.87	27.87	73.65	6.15	18.70	814.92	3.65	0.08	0.02
11/2	61.00	29.32	43.31	25.76	52.45	4.91	12.82	816.75	4.05	0.00	0.00
11/3	59.97	29.08	47.02	24.59	43.63	6.37	32.39	808.87	2.72	0.00	0.00
11/4	59.00	33.59	47.49	22.82	39.81	16.04	48.70	809.17	3.73	0.00	0.00
11/5	63.10	23.98	42.35	23.08	51.01	8.64	34.07	806.52	3.82	0.00	0.00
11/6	44.85	24.05	33.35	14.18	49.35	14.41	55.87	810.58	2.67	0.00	0.00
11/7	43.04	20.42	33.75	11.63	44.10	23.48	69.75	813.38	3.50	0.00	0.00
11/8	54.03	15.69	38.77	21.73	56.61	15.82	45.23	816.45	3.35	0.00	0.00
11/9	62.55	32.23	50.53	19.93	31.47	16.36	48.18	816.80	3.33	0.00	0.00
11/10	64.29	36.52	55.87	10.07	16.09	16.44	49.44	814.50	2.58	0.00	0.00
11/11	54.93	25.34	40.19	17.75	45.06	5.68	16.20	816.28	3.72	0.00	0.00
11/12	66.25	22.27	47.37	20.33	43.76	7.14	21.97	818.03	3.45	0.00	0.00
11/13	62.28	21.73	43.80	21.73	50.24	6.15	23.23	816.91	2.04	0.00	0.00
11/14	37.07	21.10	27.50	26.18	95.07	5.16	19.02	806.33	1.85	0.00	0.00
11/15	35.51	22.40	29.64	28.83	96.90	7.47	19.44	802.81	0.63	0.00	0.00
11/16	28.52	-0.36	15.84	13.48	90.72	9.75	26.07	804.85	2.05	0.00	0.00
11/17	40.40	11.80	26.28	15.80	64.71	7.47	20.38	810.06	2.89	0.04	0.01
11/18	60.21	28.79	41.96	29.87	62.79	8.23	43.46	809.69	3.09	0.52	0.10
11/19	70.74	43.76	57.96	28.15	33.21	12.22	52.71	806.98	3.31	0.00	0.00
11/20	65.57	31.99	54.34	22.33	30.49	17.56	66.60	806.19	3.39	0.00	0.00
11/21	56.07	21.08	35.10	29.80	83.50	5.43	15.77	810.11	2.74	0.00	0.00
11/22	57.16	32.48	45.66	30.88	56.92	6.94	42.60	803.26	2.29	0.00	0.00
11/23	52.41	17.58	28.92	25.84	90.52	5.67	37.14	809.61	0.51	0.00	0.00
11/24	46.72	13.84	28.80	24.04	84.22	5.61	20.72	814.82	3.21	0.06	0.04
11/25	51.24	24.45	40.35	19.28	45.45	10.91	35.86	813.82	3.10	0.00	0.00
11/26	31.59	17.80	26.04	24.46	93.72	6.17	15.55	815.79	0.52	0.00	0.00
11/27	44.74	7.20	26.50	13.40	63.54	6.85	27.44	815.02	2.05	0.23	0.11
11/28	54.05	21.51	38.78	14.35	38.47	5.65	14.39	807.85	3.18	0.00	0.00
11/29	42.14	19.77	30.56	21.97	73.19	7.73	20.61	802.77	2.03	0.00	0.00
11/30	34.78	10.85	23.79	14.99	72.80	9.38	46.28	807.79	2.84	0.18	0.04

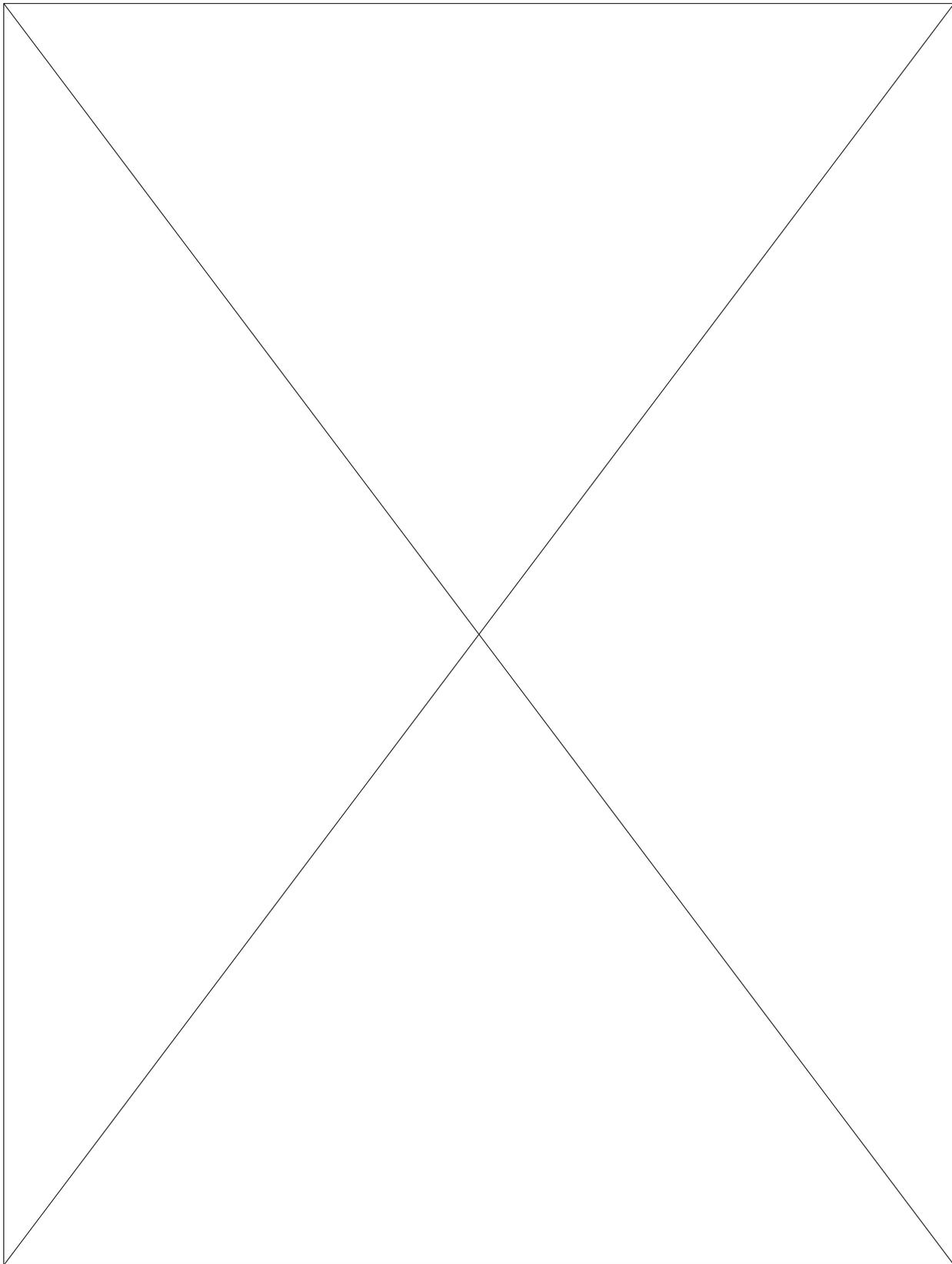
Temperature (°F)			Humidity		Wind Speed		Press	Solar	Precipitation	
Mean High	Mean Low	Mean	Dew Point	Rel. Hum.	Mean (mph)	Monthly Max	Monthly Avg	Monthly Total	Total	Monthly Max
51.9	22.8	38.0	21.5	59.1	9.5	69.8	810.9	82.3	1.1	0.1



***Figure 2-4 Windrose for the Rocky Flats Environmental Technology Site
(November 1996)***



*Figure 2-5 Day Windrose for the Rocky Flats Environmental Technology Site
(November 1996)*

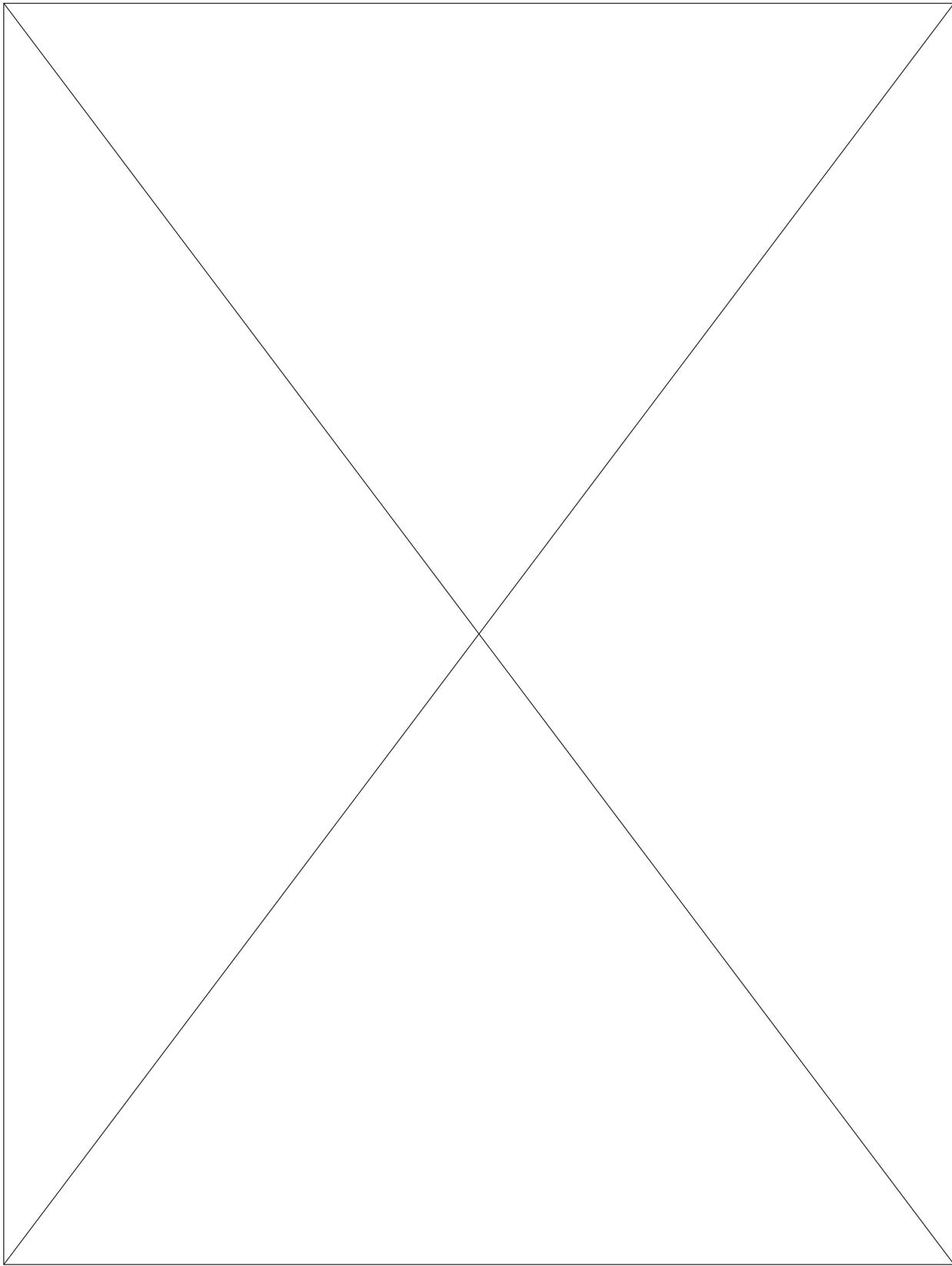


***Figure 2-6 Night Windrose for the Rocky Flats Environmental Technology Site
(November 1996)***

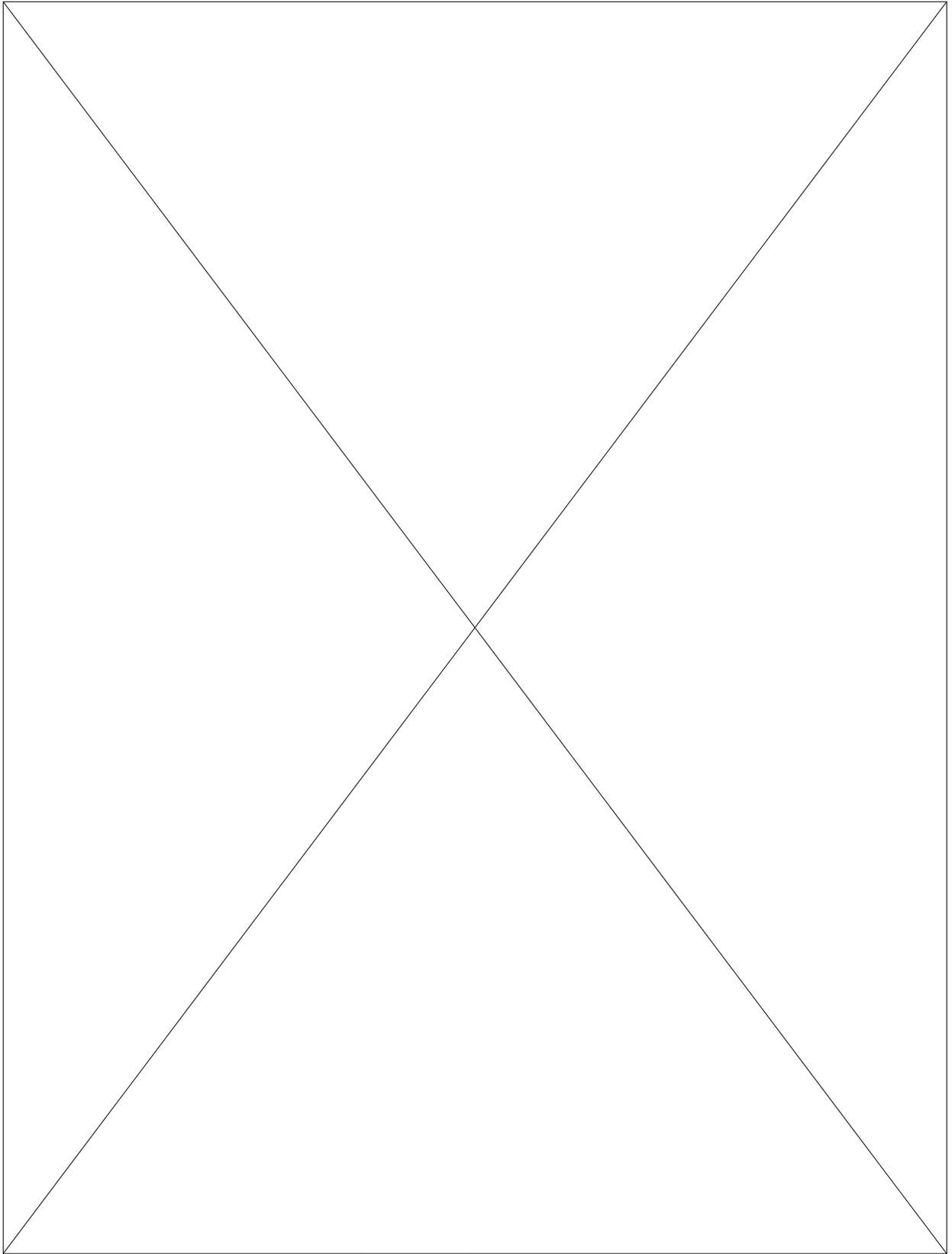
Table 2-3 Climatic Summary for December 1996

Date	Temperature (°F)			Dew-Point (°F)	Rel. Hum. (%)	Wind Speed (mph)		Press (mb)	Solar (kW-h/m ²)	Water-Equiv Precip (in.)	
	High	Low	Mean	Mean	Mean	Mean	Peak Gust (1 sec)	Mean	Total	Total	Peak (15 min)
12/1	50.68	26.41	38.10	14.89	38.68	19.10	59.45	803.51	2.44	0.01	0.01
12/2	41.17	32.30	35.88	15.16	42.22	32.68	55.01	799.29	0.00	0.00	0.00
12/3											
12/4	37.26	21.44	28.55	-8.52	19.57	23.37	76.81	808.12	2.95	0.00	0.00
12/5	51.64	27.70	40.34	21.60	52.10	18.30	67.96	798.96	1.32	0.02	0.01
12/6	41.22	26.29	33.76	17.92	52.51	12.10	38.19	803.96	1.12	0.00	0.00
12/7	46.62	24.69	33.89	10.74	39.02	14.89	53.02	813.43	2.52	0.00	0.00
12/8	66.92	33.61	49.27	21.93	34.75	11.24	48.61	813.32	1.84	0.00	0.00
12/9	66.52	39.92	51.25	16.14	25.21	11.27	33.98	809.39	1.10	0.00	0.00
12/10	57.33	34.59	49.72	21.27	32.41	20.57	58.60	802.42	1.96	0.00	0.00
12/11	56.37	30.95	45.28	21.78	40.28	14.06	63.44	806.58	2.60	0.00	0.00
12/12	56.59	34.77	46.25	21.45	38.18	17.06	46.39	811.67	2.78	0.00	0.00
12/13	52.47	24.90	40.45	25.02	57.98	8.04	40.92	813.09	2.56	0.00	0.00
12/14	49.37	12.81	29.63	6.88	41.20	23.33	67.87	813.77	2.95	0.00	0.00
12/15	37.48	9.32	27.59	0.07	37.48	14.78	62.18	814.45	2.80	0.00	0.00
12/16	37.89	-0.49	22.80	10.31	65.06	17.08	63.66	807.82	0.77	0.00	0.00
12/17	12.49	-10.25	4.35	-11.32	49.88	12.91	33.24	810.11	2.23	0.00	0.00
12/18	14.56	-9.04	2.94	-12.01	52.09	9.68	32.82	808.76	2.66	0.00	0.00
12/19	33.80	0.66	23.39	5.81	46.95	12.75	51.97	808.47	2.42	0.03	0.01
12/20	46.18	24.31	37.19	11.61	35.45	12.29	54.61	802.68	1.59	0.10	0.03
12/21	43.88	25.45	36.52	20.57	52.39	8.24	29.97	799.25	1.54	0.00	0.00
12/22	49.55	15.67	34.41	17.47	53.82	9.26	47.67	800.44	2.53	0.00	0.00
12/23	35.97	12.87	24.25	14.26	70.53	10.69	50.49	808.23	2.08	0.02	0.01
12/24	44.21	25.40	34.55	8.91	33.86	17.49	54.30	812.37	2.77	0.00	0.00
12/25	52.83	3.11	33.45	12.85	47.01	11.77	47.76	803.89	2.64	0.00	0.00
12/26	56.43	1.62	29.68	14.27	59.56	8.46	41.24	801.98	2.92	0.00	0.00
12/27	59.16	36.63	47.24	21.18	35.91	15.60	55.66	801.00	2.58	0.00	0.00
12/28	52.25	31.15	42.06	12.66	30.46	12.46	45.34	807.00	2.70	0.00	0.00
12/29	61.43	31.06	48.52	19.01	31.28	14.12	51.54	810.65	1.70	0.00	0.00
12/30	58.14	30.30	46.63	24.27	43.11	10.92	39.24	812.89	1.21	0.00	0.00
12/31	63.27	28.65	47.61	26.05	45.58	9.18	47.24	812.23	2.03	0.00	0.00

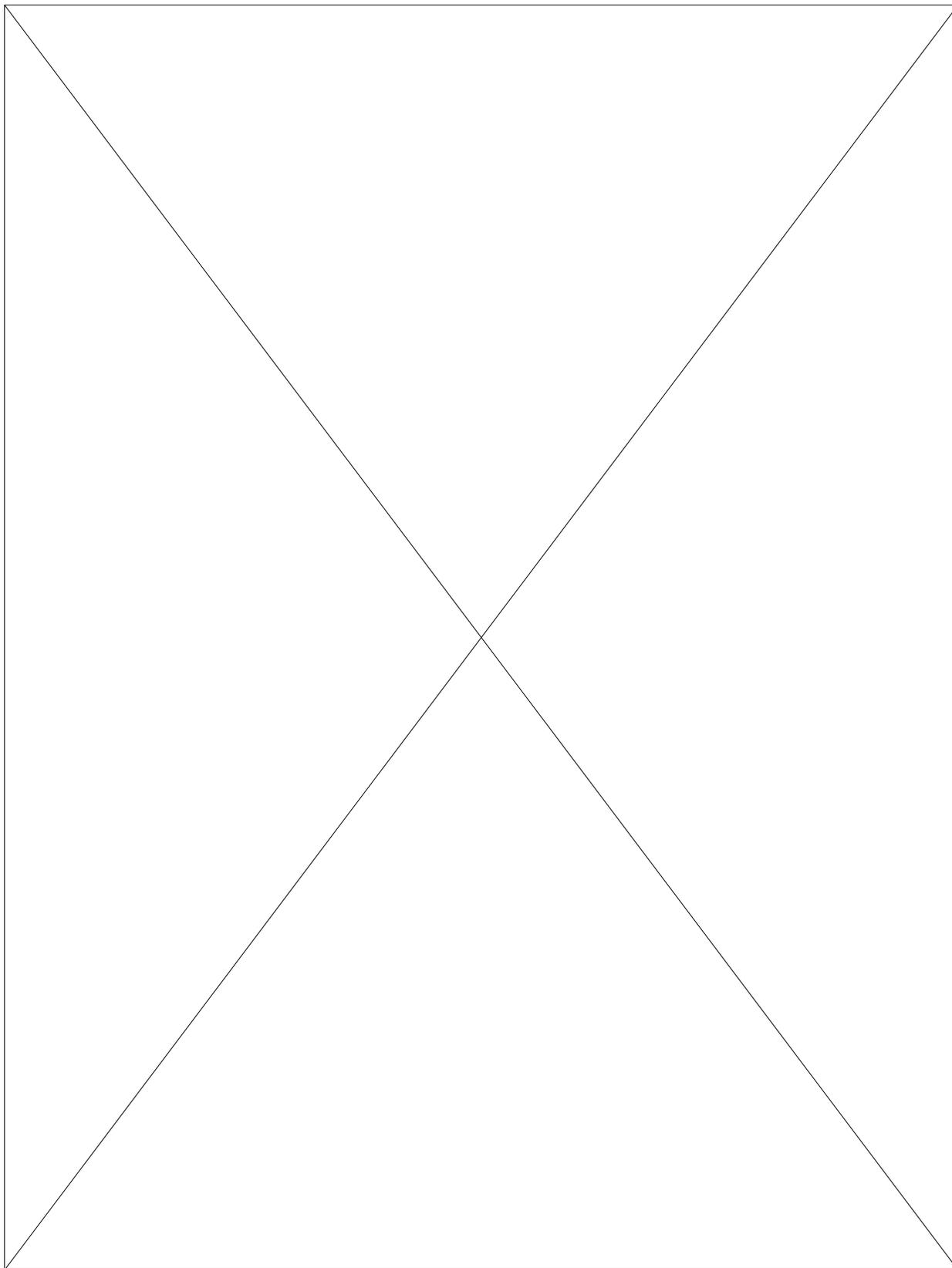
Temperature (°F)			Humidity		Wind Speed		Press	Solar	Precipitation	
Mean High	Mean Low	Mean	Dew Point	Rel. Hum.	Mean (mph)	Monthly Max	Monthly Avg	Monthly Total	Total	Monthly Max



***Figure 2-7 Windrose for the Rocky Flats Environmental Technology Site
(December 1996)***



*Figure 2-8 Day Windrose for the Rocky Flats Environmental Technology Site
(December 1996)*



***Figure 2-9 Night Windrose for the Rocky Flats Environmental Technology Site
(December 1996)***

Section 3: Surface Water Data

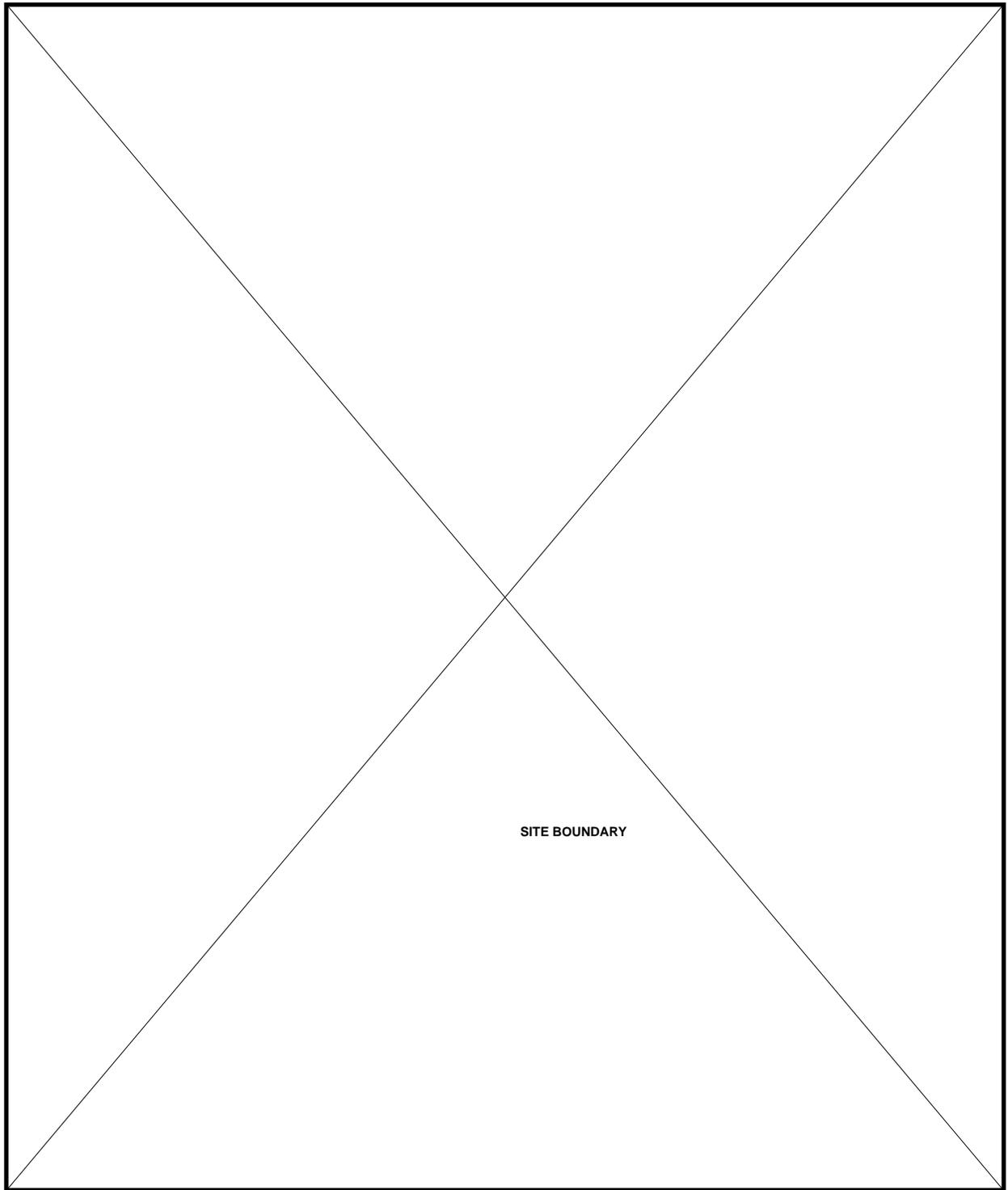


Figure 3-1 Holding Ponds and Liquid Effluent Water Courses

Table 3-1 Pond B-3 (Outfall 001A)

⁹ Dates of Discharge: 09/01/96 – 12/31/96						
Parameter & Units	Measured 30-Day Average	Limit 30-Day Average	Measured 7-Day Average	Limit 7-Day Average	Measured Daily Maximum	Limit Daily Maximum
NO ₃ /NO ₂ mg/l	3 - 4	10	3.5 - 7.3	20	N/A	N/A
TRC mg/l	N/A	N/A	N/A	N/A	0.03 - 0.07	0.5
BOD ₅ mg/l	4.8 - 8.2	a	N/A	N/A	8.7 - 12.9	a
CBOD ₅ mg/l	1.7 - 4.1	a	N/A	N/A	2.3 - 8.73	a
TSS mg/l	<5 - <14	a	N/A	N/A	7 - 33	a

^a Report only

N/A = Not Applicable
 TRC = Total Residual Chlorine
 TSS = Total Suspended Solids
 BOD₅ = Biochemical Oxygen Demand, 5-Day Test
 CBOD₅ = Carbonaceous Biochemical Oxygen Demand, 5-Day Test

Table 3-2 Sewage Treatment Plant (Outfall STP A)

Dates of Discharge: 10/01/96 – 12/31/96										
Parameter and Units	Measured 30-Day Avg	Limit 30-Day Avg	Measured 7-Day Avg	Limit 7-Day Avg	Measured Daily Min	Limit Daily Min	Measured Daily Max	Limit Daily Max	Observed Sheen	Measured Result
pH, SU	N/A	N/A	N/A	N/A	6.7	6.0	7.13–7.4	9.0	N/A	N/A
TSS, mg/l	<4 - <5	30	<4 - <5	45	N/A	N/A	N/A	N/A	N/A	N/A
Total Phosphorous, mg/l	2.0 – 3.2	8	N/A	N/A	N/A	N/A	4.0 - 6.2	12	N/A	N/A
TRC, mg/l	0.01	a	0.01	a	N/A	N/A	N/A	N/A	N/A	N/A
Total Chromium, mg/l	<5 - <10	50	N/A	N/A	N/A	N/A	<5 - <10	100	N/A	N/A
Fecal Coliform # / 100 ml	<1 - <3 ^b	200 ^b	<1 - 12 ^b	400 ^b	N/A	N/A	N/A	N/A	N/A	N/A
CBOD ₅ mg/l	1.7 - 3.5	10	N/A	N/A	N/A	N/A	2.3 - 5	25	N/A	N/A
Oil & Grease	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	c	N/A
WET										
Ceriodaphnia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>100
Fathead Minnows	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>100
Samples Collected: 07/02/96, 10/01/96, 11/05/96, and 12/03/96										
Antimony, µg/l	<30 - 60	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic, µg/l	<1.3 - 2.1	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium, µg/l	<1	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium, µg/l	<0.2	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copper, µg/l	<4	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Iron, µg/l	37.2 – 218.6	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lead, µg/l	<1 - 1.2	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Manganese, µg/l	<19.2 - 33.7	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A										
Mercury, µg/l	<0.2	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nickel, µg/l	<20	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Silver, µg/l	<0.2	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zinc, µg/l	<9.1 - 13.0	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
VOCs, µg/l	7 ^d	a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
a	Report Only		c		No Sheen Observed					
b	Geometric		d		None detected above PQL					
N/A	= Not Applicable									
SU	= Standard Units									
TSS	= Total Suspended Solids									
TRC	= Total Residual Chlorine									
CBOD ₅	= Carbonaceous Biochemical Oxygen Demand, 5- Day Test									
PQL	= Practical quantitation limit is equal to 10 times the method detection limit and represents the quantity at which 70% of laboratories can be reported in the 95% upper confidence limit.									
WET	= (Whole Effluent Toxicity) Results for WET are given in percentage of effluent sample that will cause mortality to half the test result organisms within the time frame of the test. For example, >100% indicates that 100% pure effluent did not cause acute toxicity to at least half of the organisms. A lower percentage LC ₅₀ (lethal concentration to 50% of test									

Table 3-3 Ponds – Interior and Terminal

Location, Parameter, and Units	Measured 30-Day Avg	Limit 30-Day Avg	Measured 7-Day Avg	Limit 7-Day Avg	Measured Daily Min	Limit Daily Min	Measured Daily Max	Limit Daily Max	Measured Result
Discharged: 10/28/96 - 11/05/97									
Pond A-3 (Outfall 002)									
pH, SU	N/A	N/A	N/A	N/A	7.8 - 8.0	6.0	8.0 - 8.1	9.0	N/A
NO ₃ /NO ₂ , mg/l	0.6 - 0.7	10	N/A	N/A	N/A	N/A	0.6 - 1.2	20	N/A
Discharged: 12/20/96 - 12/28/96									
Pond A-4 (Outfall 005A)									
Total Chromium, mg/l	N/A	N/A	N/A	N/A	N/A	N/A	<10.0	50	N/A
WET									
Ceriodaphnia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>100
Fathead Minnows	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>100
Discharged: 10/01/96 - 10/10/96									
Pond B-5 (Outfall 006A)									
Total Chromium, mg/l	N/A	N/A	N/A	N/A	N/A	N/A	<5.0	50	N/A
WET									
Ceriodaphnia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>100
Fathead Minnows	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	>100
NO ₃ /NO ₂ , mg/l*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TRC, mg/l*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
No Discharge									
Pond C-2 (Outfall 007A)									
Total Chromium, mg/l	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WET									
Ceriodaphnia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fathead Minnows	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<p>* Sample and analysis required only if Pond B-3 is bypassed. N/A = Not Applicable SU = Standard Units TRC = Total Residual Chlorine WET = (Whole Effluent Toxicity) Results for WET are given in percentage of effluent sample that will cause mortality to half the test result organisms within the time frame of the test. For example, >100% indicates that 100% pure effluent did not cause acute toxicity to at least half of the organisms. A lower percentage LC₅₀ (lethal concentration to 50% of test organisms) indicates a greater toxic effect because less of the sample is required to observe a sufficiently extensive adverse effect.</p>									

Table 3-4 Daily Transfer Flow Data Recorded for Pond B-5 and Pond A-4

Pond B-5 to Pond A-4		Pond B-5 to Pond A-4		Pond B-5 to Pond A-4	
Date	(gal)	Date	(gal)	Date	(gal)
10/01/96	No Transfer	11/01/96	No Transfer	12/01/96	No Transfer
10/02/96	No Transfer	11/02/96	No Transfer	12/02/96	No Transfer
10/03/96	No Transfer	11/03/96	No Transfer	12/03/96	No Transfer
10/04/96	No Transfer	11/04/96	No Transfer	12/04/96	No Transfer
10/05/96	No Transfer	11/05/96	No Transfer	12/05/96	No Transfer
10/06/96	No Transfer	11/06/96	No Transfer	12/06/96	No Transfer
10/07/96	No Transfer	11/07/96	No Transfer	12/07/96	No Transfer
10/08/96	No Transfer	11/08/96	No Transfer	12/08/96	No Transfer
10/09/96	No Transfer	11/09/96	No Transfer	12/09/96	No Transfer
10/10/96	No Transfer	11/10/96	No Transfer	12/10/96	No Transfer
10/11/96	No Transfer	11/11/96	No Transfer	12/11/96	No Transfer
10/12/96	No Transfer	11/12/96	No Transfer	12/12/96	No Transfer
10/13/96	No Transfer	11/13/96	No Transfer	12/13/96	No Transfer
10/14/96	No Transfer	11/14/96	No Transfer	12/14/96	No Transfer
10/15/96	No Transfer	11/15/96	No Transfer	12/15/96	No Transfer
10/16/96	No Transfer	11/16/96	No Transfer	12/16/96	No Transfer
10/17/96	No Transfer	11/17/96	No Transfer	12/17/96	No Transfer
10/18/96	No Transfer	11/18/96	816,000	12/18/96	No Transfer
10/19/96	No Transfer	11/19/96	1,197,000	12/19/96	No Transfer
10/20/96	No Transfer	11/20/96	1,165,000	12/20/96	No Transfer
10/21/96	No Transfer	11/21/96	1,125,000	12/21/96	No Transfer
10/22/96	No Transfer	11/22/96	1,143,000	12/22/96	No Transfer
10/23/96	No Transfer	11/23/96	1,135,000	12/23/96	No Transfer
10/24/96	No Transfer	11/24/96	1,094,000	12/24/96	No Transfer

Section 4: Hydrologic - Rocky Flats Clean-up Agreement

Figure 4 Gaging Station Locations

Key: Gaging Station Location

October - December 1996

Section 4.1 Flow Monitoring

Table 4-1 Gaging Station GS01: Mean Daily Discharge (Cubic Feet per Second)

Date	October 1996	November 1996	December 1996	January 1997	February 1997	March 1997
1	0.000 ^a	0.000	0.051			
2	0.000 ^a	0.000	0.047			
3	0.000 ^a	0.000	0.039			
4	0.000 ^a	0.000	0.035			
5	0.000 ^a	0.000	0.039			
6	0.000 ^a	0.000	0.036			
7	0.000 ^a	0.000	0.032			
8	0.000 ^a	0.000	0.032			
9	0.000 ^a	0.000	0.032			
10	0.000 ^a	0.000	0.032			
11	0.000	0.000	0.030			
12	0.000	0.000	0.034			
13	0.000	0.000	0.035			
14	0.000	0.000	0.035			
15	0.000	0.000	0.035			
16	0.000	0.000	0.037			
17	0.000	0.000	0.036			
18	0.000	0.009	0.033 ^a			
19	0.000	0.025	0.035 ^a			
20	0.000	0.039	0.044 ^a			
21	0.000	0.051	0.063			
22	0.000	0.057	0.065			
23	0.000	0.054	0.062			
24	0.000	0.058	0.056			
25	0.000	0.060	0.060			
26	0.000	0.064	0.056			
27	0.000	0.069	0.057			
28	0.000	0.064	0.053			
29	0.000	0.058	0.048			
30	0.000	0.056	0.046			
31	0.000		0.047			
Mo. Avg. (cfs)	0.000	0.022	0.043			
Monthly Discharge						
Cubic Feet	0	57,491	115,852			
Gallons	0	430,066	866,634			
Acre-Feet	0.00	1.32	2.66			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						

Gaging Station GS01 is located at 39° 52'40"N, 105° 09'55"W, at Woman Creek and Indiana Street (See Section 4 Map). This station is a RFCAPoint of Compliance, a Buffer Zone Monitoring Location and a monitoring point for water leaving the Site and flowing to Woman Creek Reservoir. This station collects samples for selected radionuclides using continuous flow-paced sampling and storm event sampling for selected water quality parameters, metals, and major ions.

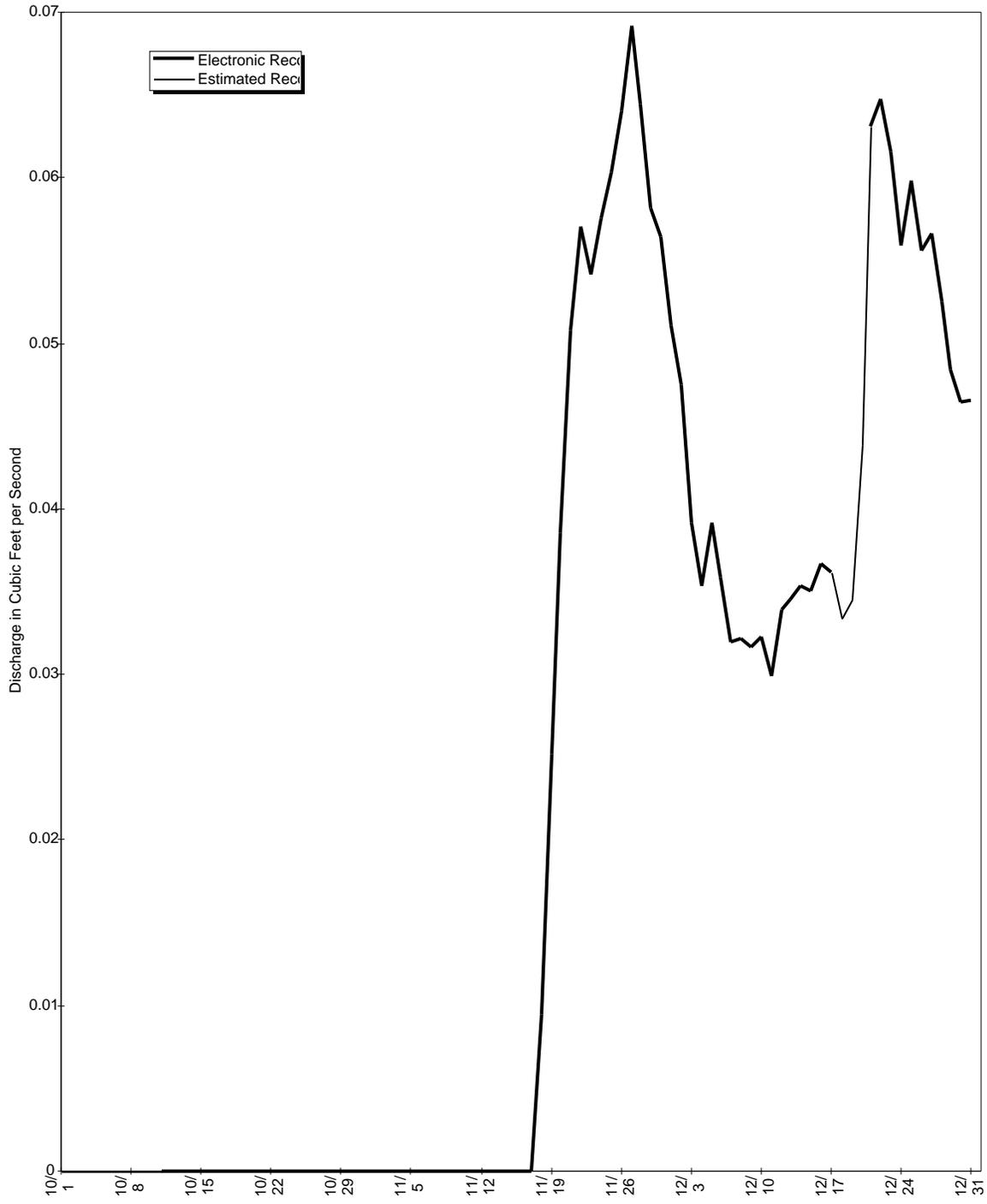
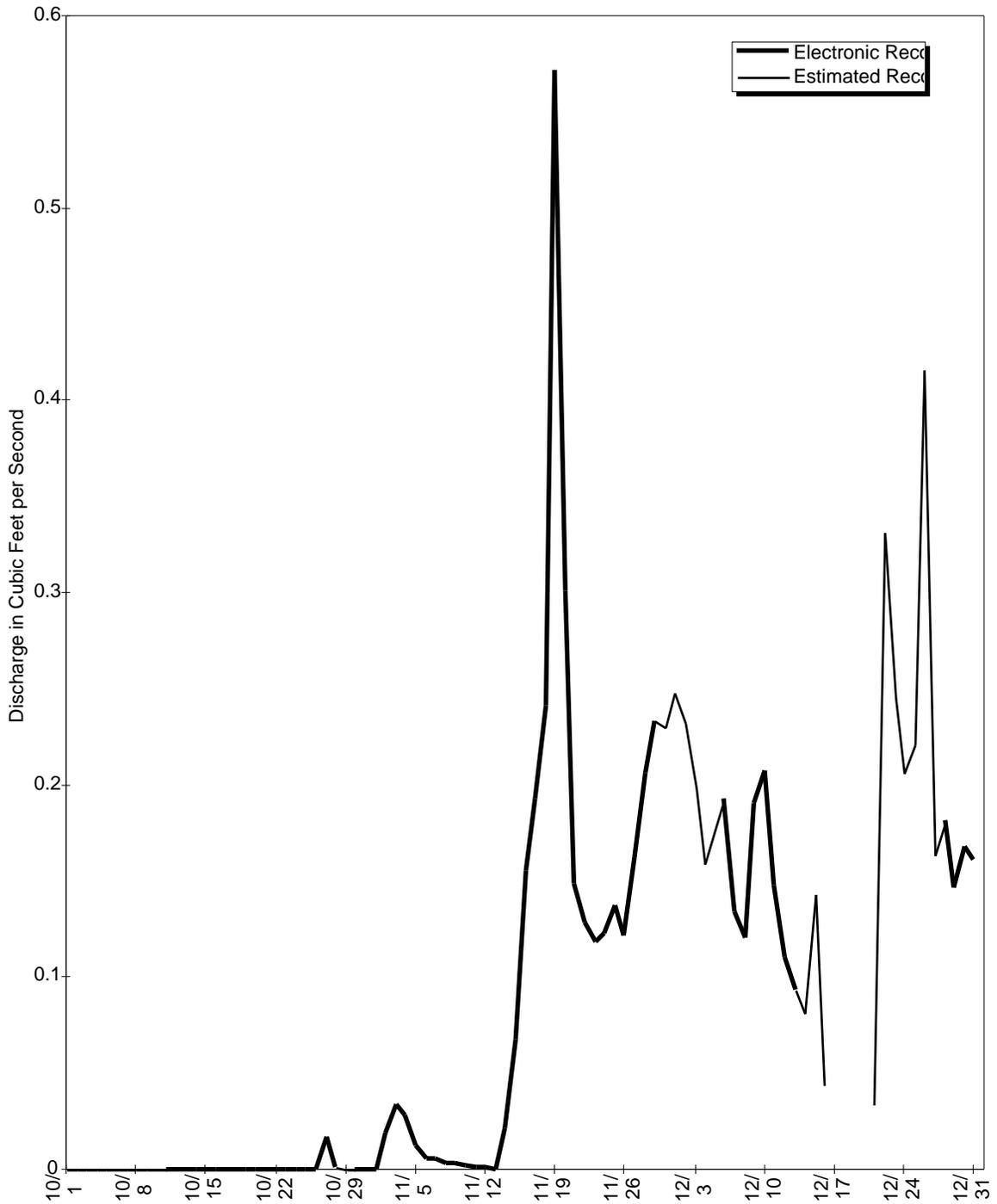


Figure 4-1 Mean Daily Discharge at Gaging Station GS01, Water Year 1997 (October, November, December 1996)

Table 4-2 Gaging Station GS02: Mean Daily Discharge (Cubic Feet per Second)

	October	November	December	January	February	March
Date	1996	1996	1996	1997	1997	1997
1	0.000 ^a	0.000	0.248 ^a			
2	0.000 ^a	0.019	0.233 ^a			
3	0.000 ^a	0.034	0.199 ^a			
4	0.000 ^a	0.029	0.159 ^a			
5	0.000 ^a	0.012	0.178 ^a			
6	0.000 ^a	0.006	0.193			
7	0.000 ^a	0.005	0.134			
8	0.000 ^a	0.004	0.120			
9	0.000 ^a	0.003	0.191			
10	0.000 ^a	0.002	0.208			
11	0.000	0.001	0.148			
12	0.000	0.001	0.110			
13	0.000	0.001	0.094			
14	0.000	0.022	0.081 ^a			
15	0.000	0.068	0.144 ^a			
16	0.000	0.156	0.044 ^a			
17	0.000	0.193	b			
18	0.000	0.241	b			
19	0.000	0.572	b			
20	0.000	0.301	b			
21	0.000	0.148	0.033 ^a			
22	0.000	0.128	0.332 ^a			
23	0.000	0.118	0.246 ^a			
24	0.000	0.123	0.206 ^a			
25	0.000	0.138	0.221 ^a			
26	0.000	0.122	0.416 ^a			
27	0.017	0.162	0.164 ^a			
28	0.002	0.206	0.182			
29	0.000 ^a	0.234	0.147			
30	0.000	0.230 ^a	0.168			
31	0.000		0.161			
Mo. Avg. (cfs)	0.001	0.109	0.176			
Monthly Discharge						
Cubic Feet	1,625	283,216	411,184			
Gallons	12,156	2,118,605	3,075,872			
Acre-Feet	0.04	6.50	9.44			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						

Gaging Station GS02 is located at 39° 52' 53"N and 105° 9' 55"W, at Mower Ditch and Indiana Street (See Section 4 Map). This station is a Buffer Zone Monitoring Location and is a monitoring point for water leaving the Site and flowing to Mower Reservoir. Storm event samples are collected for selected water quality parameters, metals, and major ions.



**Figure 4-2 Mean Daily Discharge at Gaging Station GS02, Water Year 1997
(October, November, December 1996)**

Table 4-3 Gaging Station GS03: Mean Daily Discharge (Cubic Feet per Second)

Date	October 1996	November 1996	December 1996	January 1997	February 1997	March 1997
1	1.333	0.005	0.000			
2	1.522	0.004	0.000			
3	1.541	0.005	0.000			
4	1.518	0.006	0.000			
5	1.435	0.003	0.000			
6	1.502	0.002	0.000			
7	3.578	0.002	0.000			
8	2.437	0.001	0.000			
9	1.349	0.002	0.000			
10	0.891	0.002	0.000			
11	0.024	0.001 ^a	0.000			
12	0.008	0.001	0.000			
13	0.004	0.002	0.000			
14	0.006	0.002	0.000			
15	0.018	0.003	0.000			
16	0.018	^b	0.000			
17	0.026	0.257 ^a	0.000			
18	0.031	0.144 ^a	0.000			
19	0.026	0.001	0.000			
20	0.005	0.000	1.098			
21	0.007	0.000	2.453			
22	0.006	0.000	2.381			
23	0.011	0.000	1.999			
24	0.021	0.000	1.828			
25	0.033	0.000	1.664			
26	0.049	0.001	1.140			
27	0.033	0.001	0.665			
28	0.049	0.000	0.317			
29	0.035	0.001	0.027			
30	0.029	0.001	0.001			
31	0.006		0.008			
Mo. Avg. (cfs)	0.564	0.015	0.438			
Monthly Discharge						
Cubic Feet	1,511,902	38,542	1,174,325			
Gallons	11,309,813	288,313	8,784,564			
Acre- Feet	34.70	0.88	26.95			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						

Gaging Station GS03 is located at 39° 54' 7"N, 105° 9' 59"W, at Walnut Creek and Indiana Street (See Section 4 Map). This station is a RFCA Point of Compliance, a Buffer Zone Monitoring Location and a monitoring point for water leaving the Site and flowing to the Broomfield Diversion Ditch. This station collects samples for selected radionuclides using continuous flow-paced sampling and storm event sampling for selected water quality parameters, metals, and major ions.

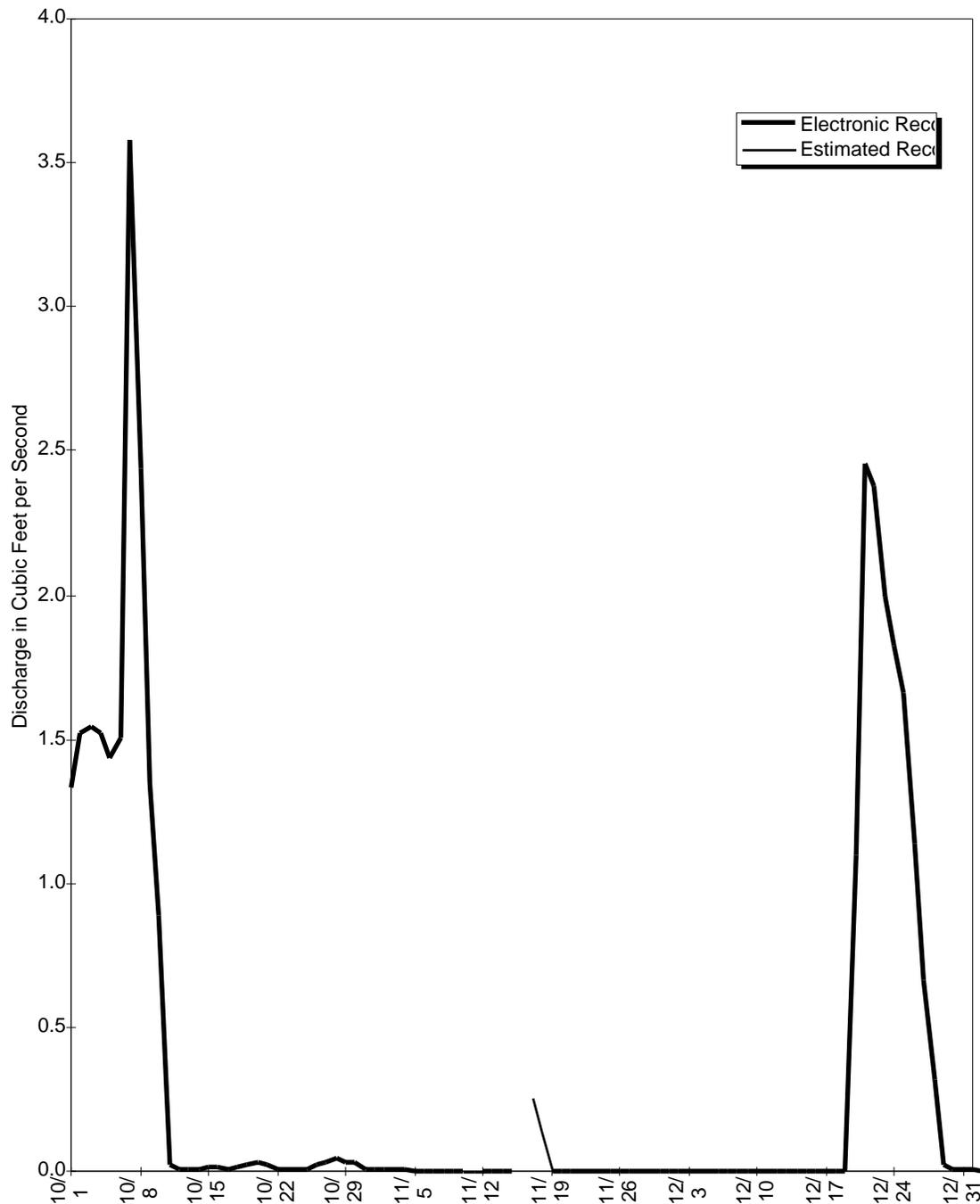


Figure 4-3 Mean Daily Discharge at Gaging Station GS03, Water Year 1997 (October, November, December 1996)

Table 4-4 Gaging Station GS04 Mean Daily Discharge (Cubic Feet per Second)

Date	October 1996	November 1996	December 1996	January 1997	February 1997	March 1997
1	0.000 ^a	0.095	0.251			
2	0.000 ^a	0.142	0.232			
3	0.000 ^a	0.406	0.173			
4	0.000 ^a	0.218	0.158			
5	0.000 ^a	0.155	0.150			
6	0.000 ^a	0.140	0.208			
7	0.000 ^a	0.129	0.185			
8	0.000 ^a	0.118	0.192			
9	0.000 ^a	0.111	0.234			
10	0.000 ^a	0.109	0.230			
11	0.000 ^a	0.104	0.200			
12	0.000 ^a	0.102	0.185			
13	0.000 ^a	0.108	0.180			
14	0.000 ^a	0.129	0.178			
15	0.000 ^a	0.153	0.157			
16	0.000 ^a	0.214	0.135			
17	0.000 ^a	0.265	b			
18	0.000 ^a	0.375	b			
19	0.000 ^a	0.601	b			
20	c	0.299	b			
21	c	0.216	b			
22	c	0.206	b			
23	c	0.190	b			
24	c	0.188	b			
25	c	0.193	b			
26	0.123	0.753	b			
27	0.187	0.276	b			
28	0.178	0.254	b			
29	0.176	0.249	b			
30	0.139	0.254	0.255 ^a			
31	0.097		0.237			
Mo. Avg. (cfs)	0.036	0.225	0.197			
Monthly Discharge						
Cubic Feet	77,828	583,478	305,801			
Gallons	582,190	4,364,719	2,287,549			
Acre- Feet	1.79	13.39	7.02			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						
<p>^a Contain data estimated from field observations and electronic record at adjacent or</p>						

Gaging Station GS04 is located 39° 54' 57"N, 105° 11' 37"W, at Rock Creek and Highway 128 (See Section 4 Map). This station is a Buffer Zone Monitoring Location and is a monitoring point for water leaving the Site through the Rock Creek drainage flowing to Coal Creek. Storm event samples are collected for selected water quality parameters, metals, and major ions.

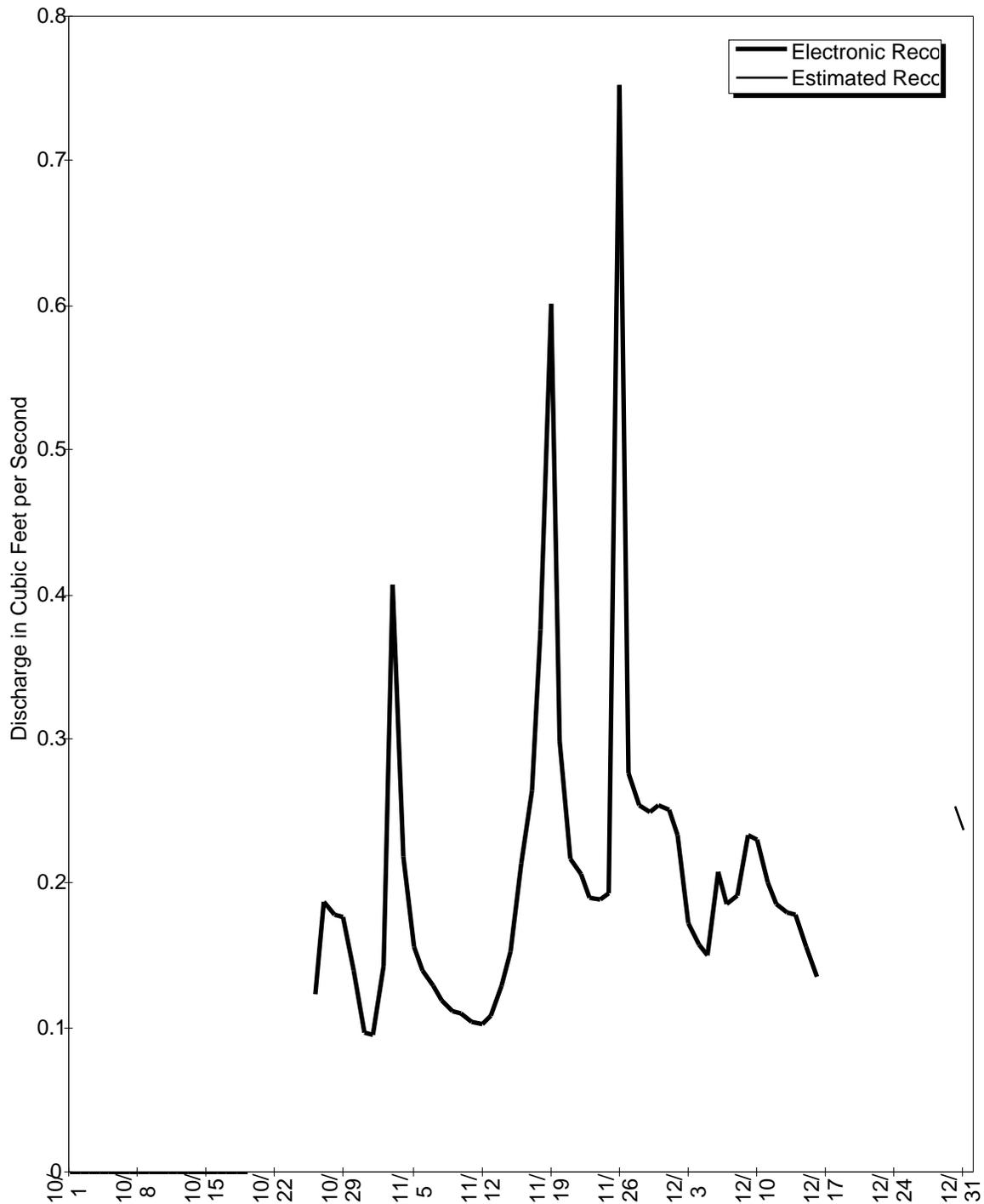


Figure 4-4 Mean Daily Discharge at Gaging Station GS04, Water Year 1997 (October, November, December 1996)

Table 4-5 Gaging Station GS05: Mean Daily Discharge (Cubic Feet per Second)

	October	November	December	January	February	March
Date	1996	1996	1996	1997	1997	1997
1	a	0.052	0.166			
2	a	0.042	0.111			
3	a	0.049	0.210			
4	a	0.044	0.291			
5	a	0.047	0.333			
6	a	0.052	0.110			
7	a	0.050	0.084			
8	a	0.047	0.096			
9	a	0.046	0.099			
10	a	0.049	0.088			
11	a	0.058	0.088			
12	a	0.068	0.091			
13	a	0.069	0.091			
14	a	0.071	0.090			
15	a	0.089	0.103 ^a			
16	a	0.100	c			
17	a	0.114	c			
18	0.013	0.146	c			
19	0.013	0.136	c			
20	0.013	0.091	c			
21	0.012	0.086	c			
22	0.012	0.096	c			
23	0.010	0.086	c			
24	0.010	0.104	c			
25	0.009	0.103	c			
26	0.037	0.105	c			
27	0.017	0.123	c			
28	0.016	0.129	c			
29	0.047 ^b	0.120	c			
30	0.022 ^b	0.126	c			
31	0.046		c			
Mo. Avg. (cfs)	0.020	0.083	0.137			
Monthly Discharge						
Cubic Feet	23,8117	215,956	177,3202			
Gallons	178,117	1,615,466	1,326,444			
Acre- Feet	0.55	4.96	4.07			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						
<p>^a No available data for these dates.</p>						

Gaging Station GS05 is located 39° 53' 6"N, 105° 13' 17"W, at Kinnear Ditch and North Woman Creek (See Section 4 Map). This station is a Buffer Zone Monitoring Location and is a monitoring point for water entering North Woman Creek. Storm event samples are collected for selected water quality parameters, metals, and major ions.

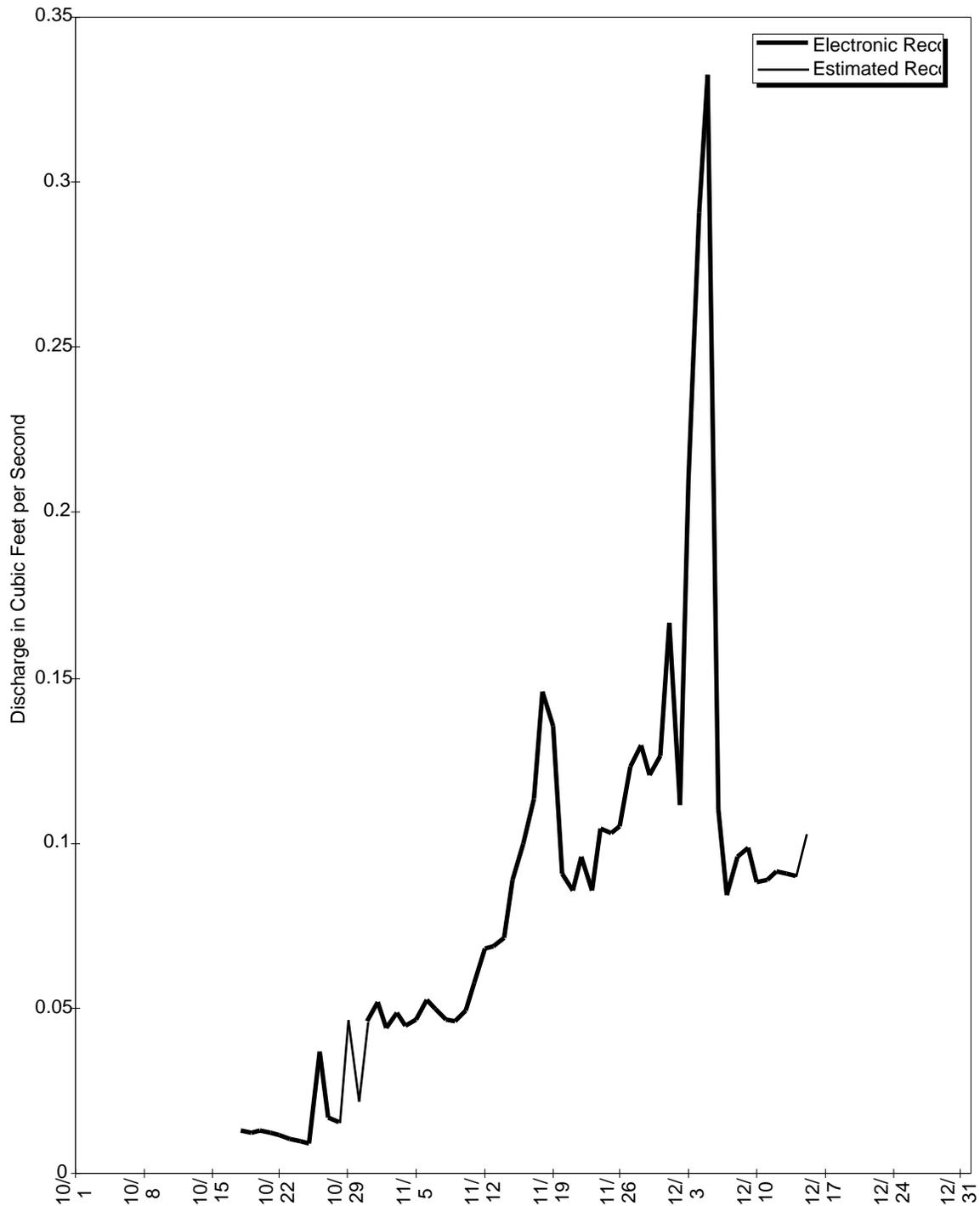


Figure 4-5 Mean Daily Discharge at Gaging Station GS05, Water Year 1997 (October, November, December 1996)

Table 4-6 Gaging Station GS06: Mean Daily Discharge (Cubic Feet per Second)

Date	October 1996	November 1996	December 1996	January 1997	February 1997	March 1997
1	a	0.001 ^b	0.002			
2	a	0.001 ^b	0.001 ^a			
3	a	0.001 ^b	0.004 ^a			
4	a	0.001 ^b	0.002 ^a			
5	a	0.001 ^b	0.001			
6	a	0.001 ^b	0.003 ^a			
7	a	0.001 ^b	0.002 ^a			
8	a	0.001 ^b	0.001			
9	a	0.001 ^b	0.001			
10	a	0.001 ^b	0.001			
11	a	0.001 ^b	0.001			
12	a	0.001 ^b	0.001			
13	a	0.001 ^b	0.001			
14	a	0.002	0.001 ^a			
15	a	0.002	0.007 ^a			
16	a	0.004	0.001			
17	a	0.005	c			
18	a	0.004	c			
19	a	0.003	c			
20	a	0.002	c			
21	a	0.002	c			
22	a	0.001	c			
23	a	0.001	c			
24	0.001 ^b	0.001	c			
25	0.001 ^b	0.000	c			
26	0.001 ^b	0.001	c			
27	0.001 ^b	0.002	c			
28	0.001 ^b	0.003	c			
29	0.001 ^b	0.001	c			
30	0.001 ^b	0.001	c			
31	0.001 ^b		c			
Mo. Avg. (cfs)	0.001	0.001	0.002			
Monthly Discharge						
Cubic Feet	985	3,645	2,720			
Gallons	7,369	27,266	20,344			
Acre- Feet	0.02	0.08	0.06			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						
<p>^a No available data for these dates.</p>						

Gaging Station GS06 is located 39° 52' 53"N, 105° 13' 17"W, on South Woman Creek (See Section 4 Map). This station is a Buffer Zone Monitoring Location and is a monitoring point for water entering South Woman Creek. Storm event samples are collected for selected water quality parameters, metals, and major ions.

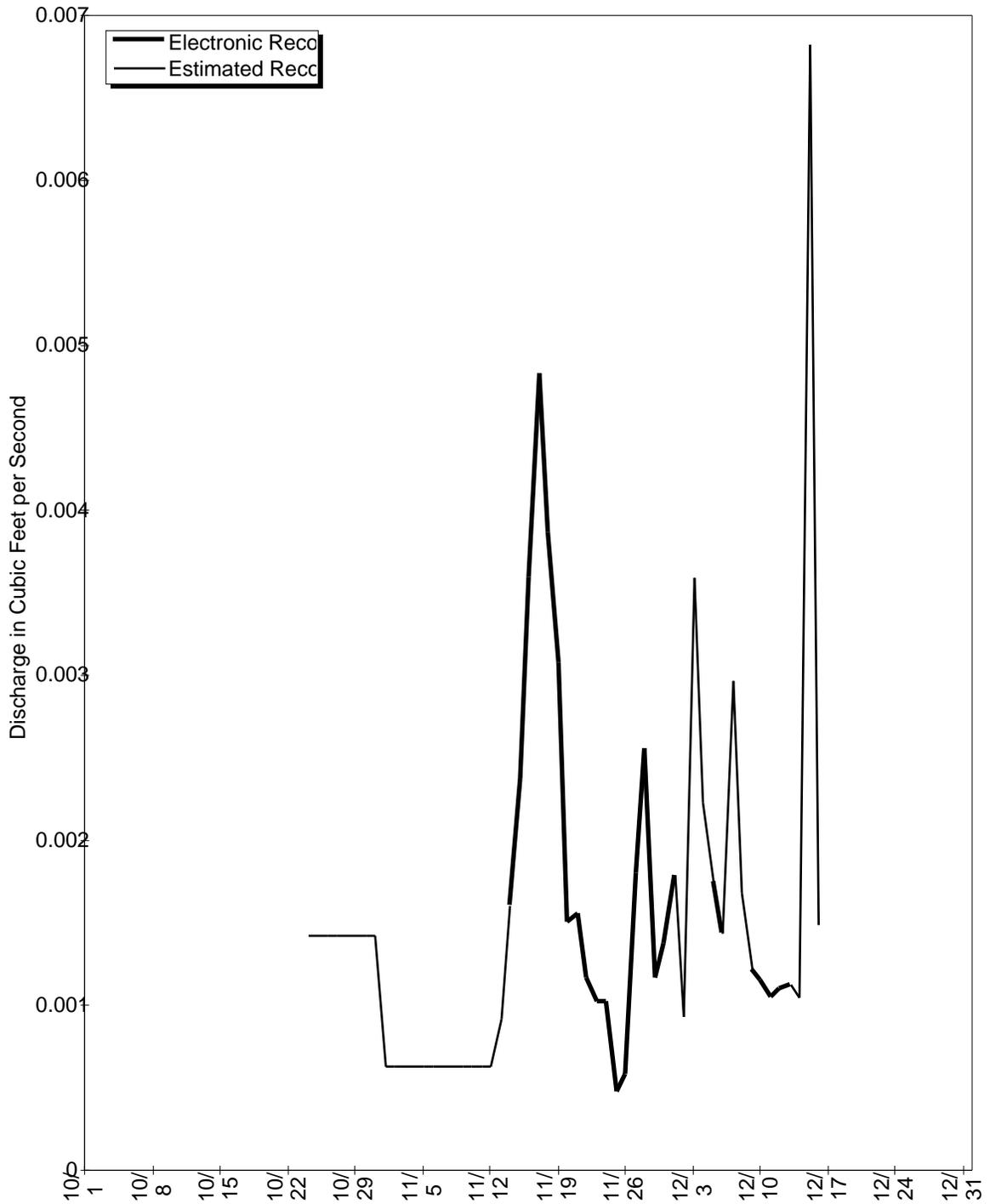


Figure 4-6 Mean Daily Discharge at Gaging Station GS06, Water Year 1997 (October, November, December 1996)

Table 4-7 Gaging Station GS08: Mean Daily Discharge (Cubic Feet per Second)

Date	October 1996	November 1996	December 1996	January 1997	February 1997	March 1997
1	1.798	0.000	0.000			
2	1.940	0.000	0.000			
3	1.949	0.000	0.000			
4	1.882	0.000	0.000			
5	1.762	0.000	0.000			
6	1.421	0.000	0.000			
7	2.514	0.000	0.000			
8	1.844	0.000	0.000			
9	1.797	0.000	0.000			
10	0.863	0.000	0.000			
11	0.000	0.000	0.000			
12	0.000	0.000	0.000			
13	0.000	0.000	0.000			
14	0.000	0.000	0.000			
15	0.000	0.000	0.000			
16	0.000	0.000	0.000			
17	0.000	0.000	0.000			
18	0.000	0.000	0.000			
19	0.000	0.000	0.000			
20	0.000	0.000	0.000			
21	0.000	0.000	0.000			
22	0.000	0.000	0.000			
23	0.000	0.000	0.000			
24	0.000	0.000	0.000			
25	0.000	0.000	0.000			
26	0.000	0.000	0.000			
27	0.000	0.000	0.000			
28	0.000	0.000	0.000			
29	0.000	0.000	0.000			
30	0.000	0.000	0.000			
31	0.000	0.000	0.000			
Mo. Avg. (cfs)	0.573	0.000	0.000			
Monthly Discharge						
Cubic Feet	1,535,344	0	0			
Gallons	11,485,173	0	0			
Acre-Feet	35.24	0.00	0.00			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						

Gaging Station GS08 is located 39° 53'54"N, 105° 10' 48"W, at the Pond B-5 Outfall on South Walnut Creek (See Section 4 Map). This station is a RFCA Point of Compliance and monitors water discharged from Pond B-5 to South Walnut Creek. This station collects samples for selected radionuclides using continuous flow-paced sampling.

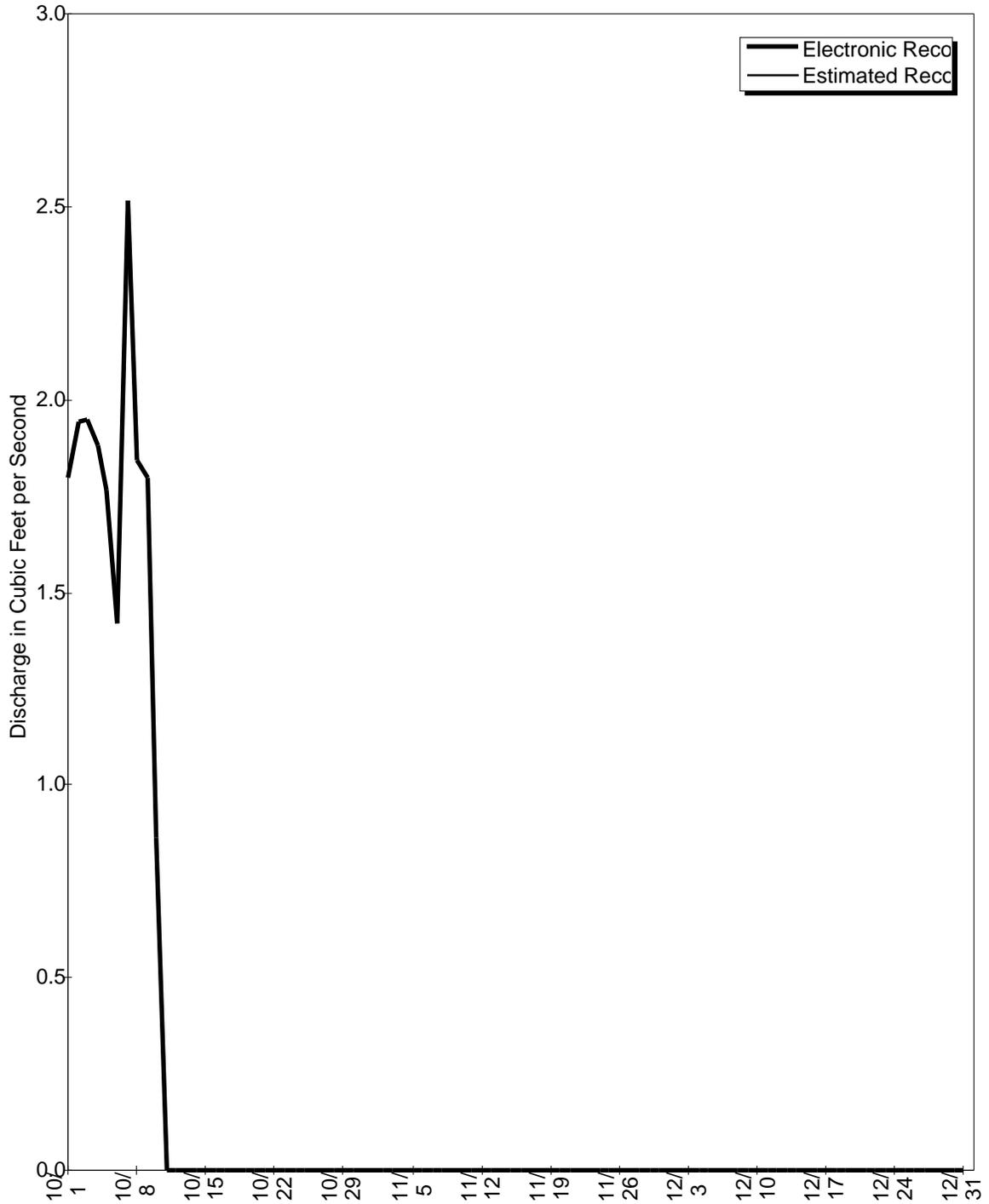


Figure 4-7 Mean Daily Discharge at Gaging Station GS08, Water Year 1997 (October, November, December 1996)

Table 4-8 Gaging Station GS10: Mean Daily Discharge (Cubic Feet per Second)

Date	October 1996	November 1996	December 1996	January 1997	February 1997	March 1997
1	0.063	0.055	0.071			
2	0.059	0.047	0.067			
3	0.060	0.046	0.056 ^a			
4	0.055	0.047	0.049 ^a			
5	0.054	0.047	0.053 ^a			
6	0.051	0.045	0.056 ^a			
7	0.054	0.048	0.047 ^a			
8	0.054	0.049	0.047 ^a			
9	0.052	0.049	0.050 ^a			
10	0.047	0.050	0.047 ^a			
11	0.0047	0.053	0.046 ^a			
12	0.044	0.044	0.044 ^a			
13	0.041	0.044	0.043 ^a			
14	0.042	0.046	0.045 ^a			
15	0.045	0.063	0.045 ^a			
16	0.044	0.108	0.043 ^a			
17	0.039	0.128	0.041 ^a			
18	0.041	0.183	0.041 ^a			
19	0.043	0.194	0.041 ^a			
20	0.105	0.073	0.050 ^a			
21	0.058	0.063	0.055			
22	0.047	0.063	0.059			
23	0.046	0.057	0.051			
24	0.047	0.057	0.048			
25	0.047	0.070	0.053			
26	0.387	0.057	0.047			
27	0.046	0.096	0.049			
28	0.050	0.078	0.047			
29	0.046	0.063	0.049			
30	0.048	0.115	0.047			
31	0.048		0.046			
Mo. Avg. (cfs)	0.062	0.071	0.050			
Monthly Discharge						
Cubic Feet	164,877	184,854	132,802			
Gallons	1,233,363	1,382,805	993,430			
Acre-Feet	3.78	4.24	3.05			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						

Gaging Station GS10 is located 39° 53'35"N, 105° 11'27"W on South Walnut Creek above the Pond B-1 Bypass (See Section 4 Map). This station is a RFCAAction Level Framework and a New Source Detection Location and monitors water leaving the Site Industrial Area and entering the B-Series Ponds and South Walnut Creek. This station collects samples for selected radionuclides, metals, and water quality parameters using continuous flow-paced sampling.

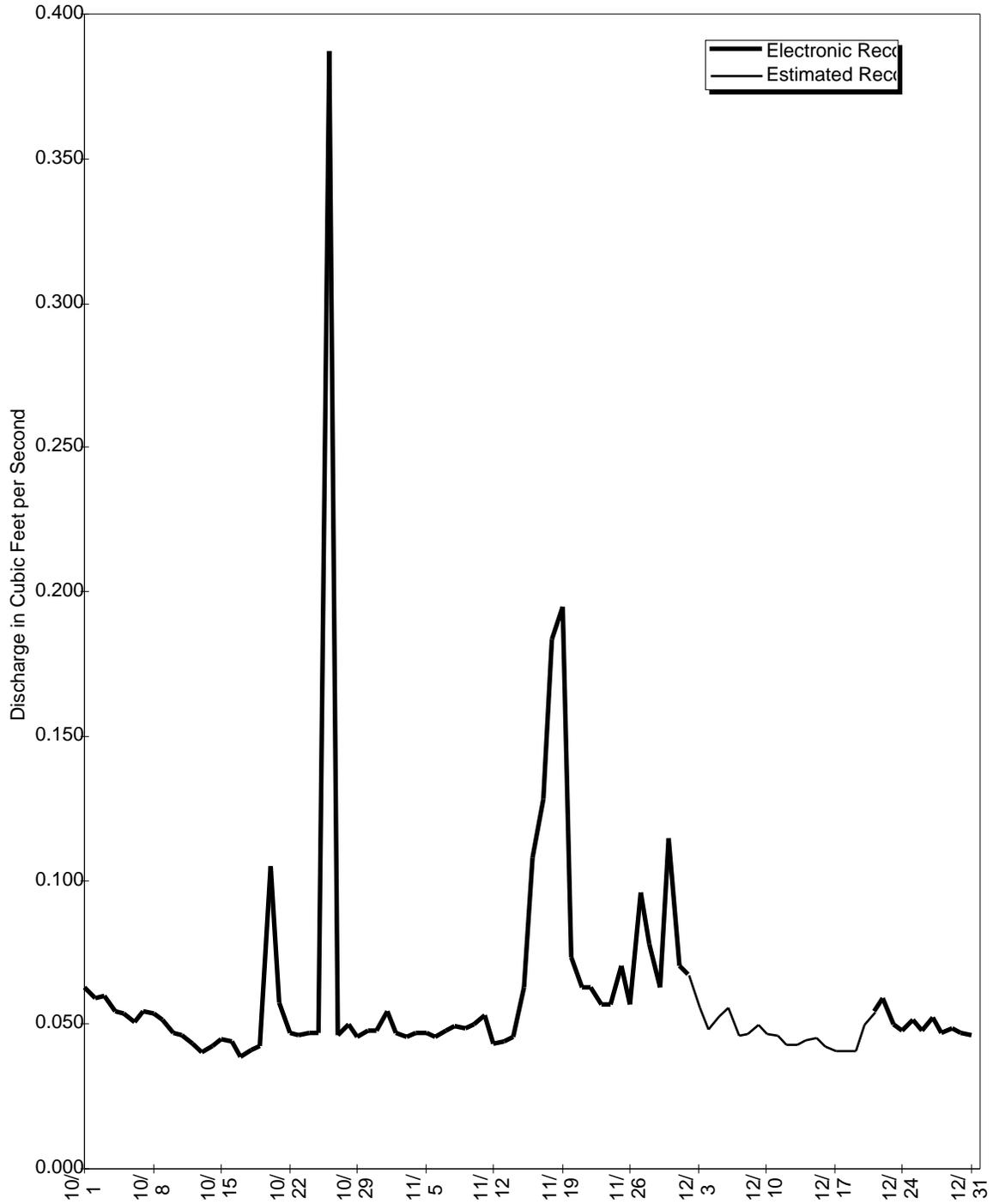


Figure 4-8 Mean Daily Discharge at Gaging Station GS10, Water Year 1997 (October, November, December 1996)

Table 4-9 Gaging Station GS11: Mean Daily Discharge (Cubic Feet per Second)

Date	October 1996	November 1996	December 1996	January 1997	February 1997	March 1997
1	0.000	0.000	0.000			
2	0.000	0.000	0.000			
3	0.000	0.000	0.000			
4	0.000	0.000	0.000			
5	0.000	0.000	0.000			
6	0.000	0.000	0.000			
7	0.000	0.000	0.000			
8	0.000	0.000	0.000			
9	0.000	0.000	0.000			
10	0.000	0.000	0.000			
11	0.000	0.000	0.000			
12	0.000	0.000	0.000			
13	0.000	0.000	0.000			
14	0.000	0.000	0.000			
15	0.000	0.000	0.000			
16	0.000	0.000	0.000			
17	0.000	0.000	0.000 ^a			
18	0.000	0.000	0.000 ^a			
19	0.000	0.000	0.000 ^a			
20	0.000	0.000	1.974			
21	0.000	0.000	2.759			
22	0.000	0.000	2.521			
23	0.000	0.000	2.051			
24	0.000	0.000	1.967			
25	0.000	0.000	1.703			
26	0.000	0.000	1.036			
27	0.000	0.000	0.573			
28	0.000	0.000	0.158			
29	0.000	0.000	0.000			
30	0.000	0.000	0.000			
31	0.000		0.000			
Mo. Avg. (cfs)	0.000	0.000	0.476			
Monthly Discharge						
Cubic Feet	0	0	1,273,638			
Gallons	0	0	9,527,472			
Acre-Feet	0.00	0.00	29.23			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						

Gaging Station GS11 is located 39° 54' 3" N, 105° 10' 47" W, at the Pond A-4 Outfall on North Walnut Creek (See Section 4 Map). This station is a RFCA Point of Compliance and monitors water discharged from Pond A-4 to North Walnut Creek. This station collects samples for selected radionuclides using continuous flow-paced sampling.

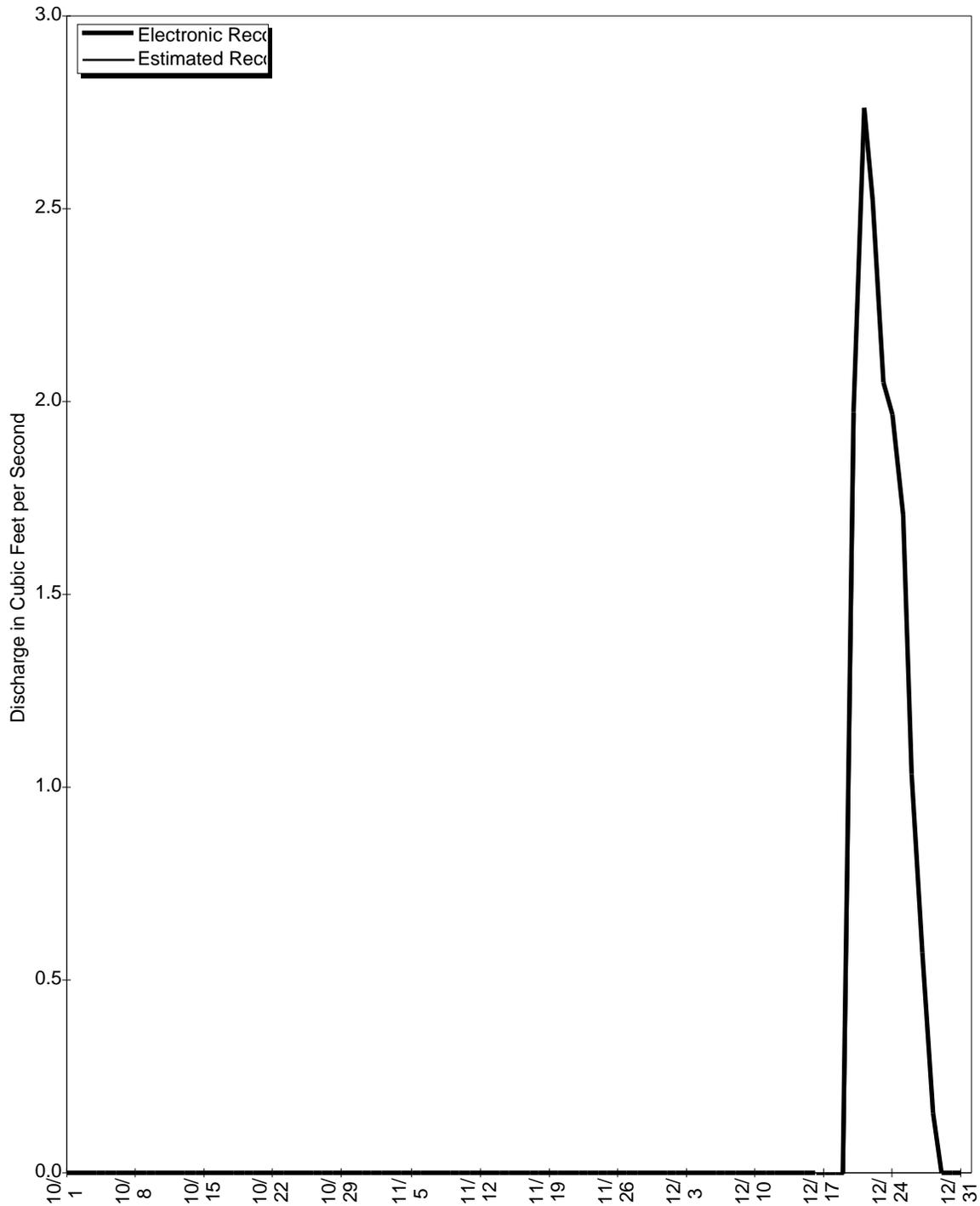


Figure 4-9 Mean Daily Discharge at Gaging Station GS11, Water Year 1997 (October, November, December 1996)

Table 4-10 Gaging Station GS16: Mean Daily Discharge (Cubic Feet per Second)

	October	November	December	January	February	March
Date	1996	1996	1996	1997	1997	1997
1	a	0.112	0.181 ^b			
2	a	0.099	0.135 ^b			
3	a	0.100	0.273 ^b			
4	a	0.095	0.332 ^b			
5	a	0.097	0.265 ^b			
6	a	0.096	0.142			
7	a	0.088	0.146			
8	a	0.102	0.208			
9	a	0.091	0.166			
10	a	0.088	0.135			
11	a	0.094	0.119			
12	a	0.098	0.113			
13	a	0.102 ^b	0.120			
14	a	0.107 ^b	0.110			
15	a	0.114	0.216			
16	a	0.132	0.111 ^b			
17	a	0.181	c			
18	a	0.220	c			
19	a	0.254	c			
20	a	0.124	c			
21	a	0.120	c			
22	a	0.122	0.289 ^b			
23	a	0.125	0.157 ^b			
24	a	0.137	0.133 ^b			
25	0.106	0.115	0.154 ^b			
26	0.176	0.118 ^b	0.356 ^b			
27	0.113	0.187 ^b	0.210 ^b			
28	0.107	0.203 ^b	0.135			
29	0.091	0.149 ^b	0.145			
30	0.101	0.161 ^b	0.147			
31	0.098		0.142			
Mo. Avg. (cfs)	0.113	0.128	0.178			
Monthly Discharge						
Cubic Feet	68,393	331,094	400,862			
Gallons	511,617	2,476,752	2,998,656			
Acre-Feet	1.57	7.60	9.20			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						
<p>^a No available data for these dates.</p>						

Gaging Station GS16 is located 39° 53' 1" N, 105° 12' 8" W along Antelope Springs Gulch, south of Woman Creek (See Section 4 Map). This station is a Buffer Zone Monitoring Location and is a monitoring point for water entering Woman Creek from Antelope Springs. No samples are collected at this location.

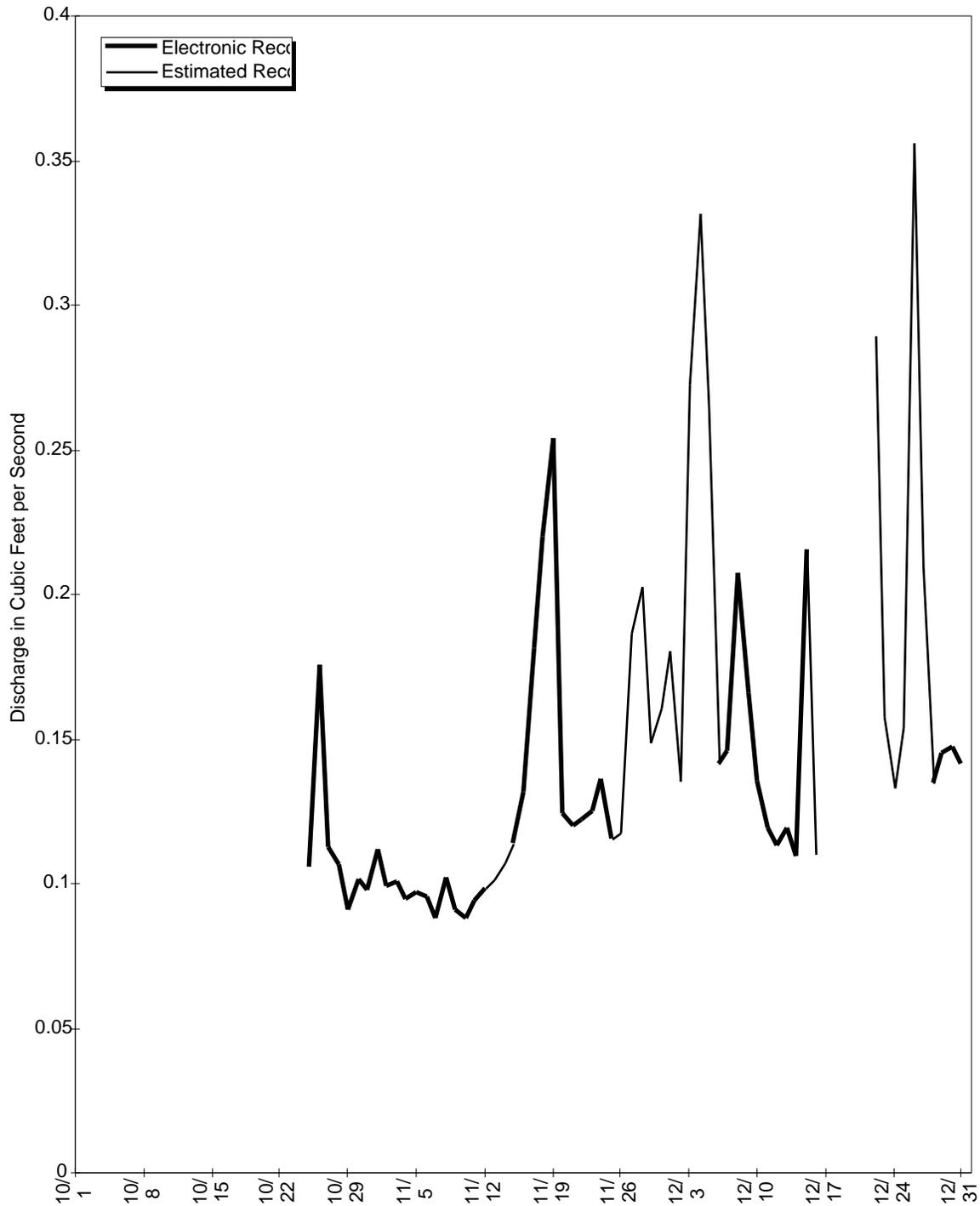


Figure 4-10 Mean Daily Discharge at Gaging Station GS16, Water Year 1997 (October, November, December 1996)

Table 4-11 Gaging Station GS27: Mean Daily Discharge (Cubic Feet per Second)

	October	November	December	January	February	March
Date	1996	1996	1996	1997	1997	1997
1	0.0000	0.0000	0.0000			
2	0.0000	0.0000	0.0000			
3	0.0000	0.0000	0.0000			
4	0.0000	0.0000	0.0000			
5	0.0000	0.0000	0.0000			
6	0.0000	0.0000	0.0000			
7	0.0000	0.0000	0.0000			
8	0.0000	0.0000	0.0000			
9	0.0000	0.0000	0.0000			
10	0.0000	0.0000	0.0000			
11	0.0000	0.0000	0.0000			
12	0.0000	0.0000	0.0000			
13	0.0000	0.0000	0.0000			
14	0.0000	0.0000	0.0000			
15	0.0000	0.0000	0.0000			
16	0.0000	0.0000	0.0000			
17	0.0000 ^a	0.0000	0.0000			
18	0.0000 ^a	0.0000	0.0000			
19	0.0000 ^a	0.0000	0.0000			
20	^b	0.0000	0.0000			
21	0.0000 ^a	0.0000	0.0000			
22	0.0000 ^a	0.0000	0.0000			
23	0.0000 ^a	0.0000	0.0000			
24	0.0000 ^a	0.0000	0.0000			
25	0.0000 ^a	0.0000	0.0000			
26	^b	0.0000	0.0000			
27	0.0000 ^a	0.0000	0.0000			
28	0.0000 ^a	0.0000	0.0000			
29	0.0000 ^a	0.0000	0.0000			
30	0.0000 ^a	0.0002	0.0000			
31	0.0000		0.0000			
Mo. Avg. (cfs)	0.0000	0.000	0.000			
Monthly Discharge						
Cubic Feet	0	14	0			
Gallons	0	104	0			
Acre-Feet	0.00	0.00	0.00			
<p>Note: Mean flow values are reported to the nearest 0.0001 cfs, values less than 0.00005 cfs are reported as zero.</p>						

Gaging Station GS27 is located at State Plane 2080529; 751216, at the small drainage ditch NW of Building 884 (See Section 4 Map). This location is a Performance and Best Management Practices Monitoring Location and monitors water draining from the Building 889 area. Storm event samples are collected for selected radionuclides, water quality parameters, and metals.

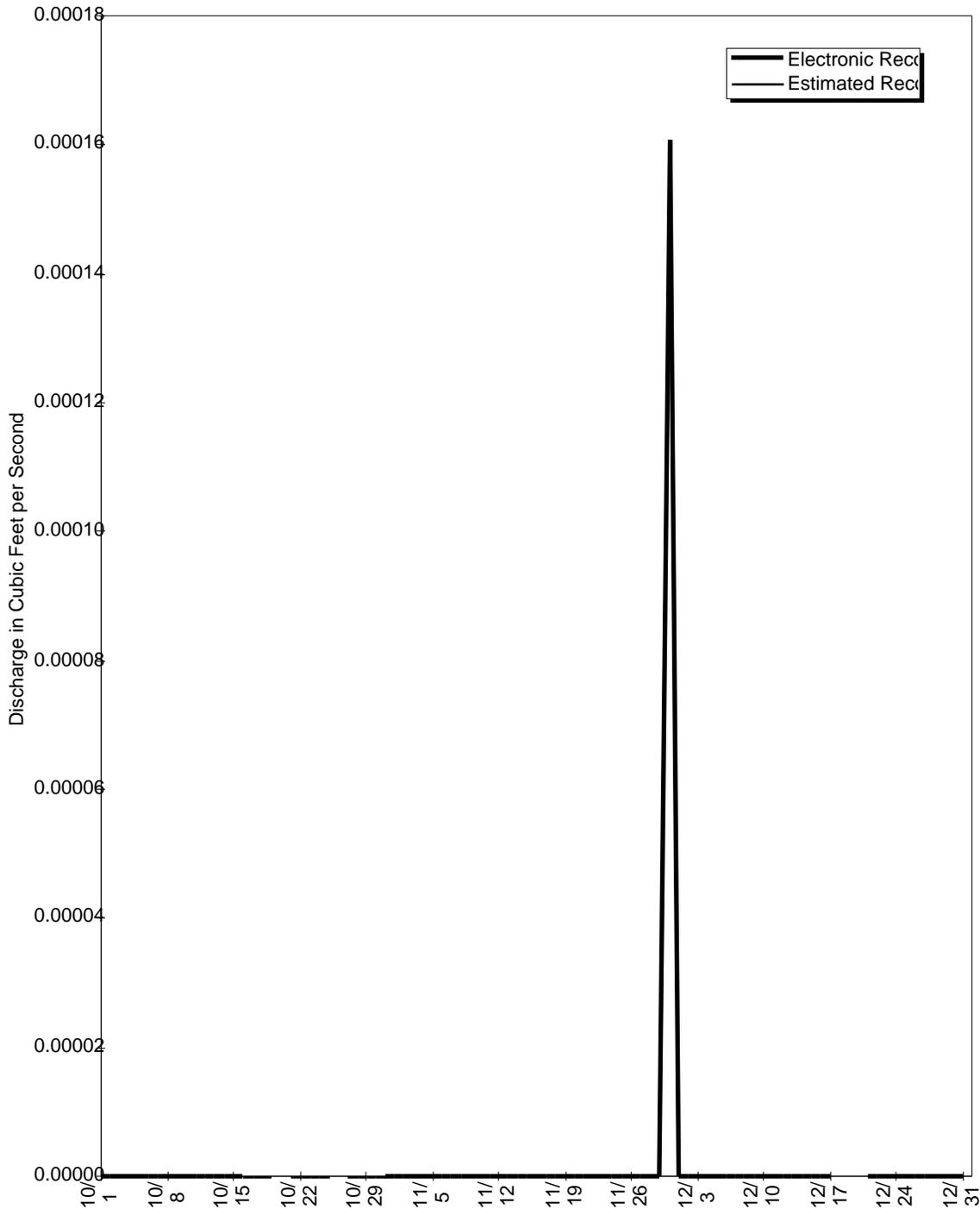
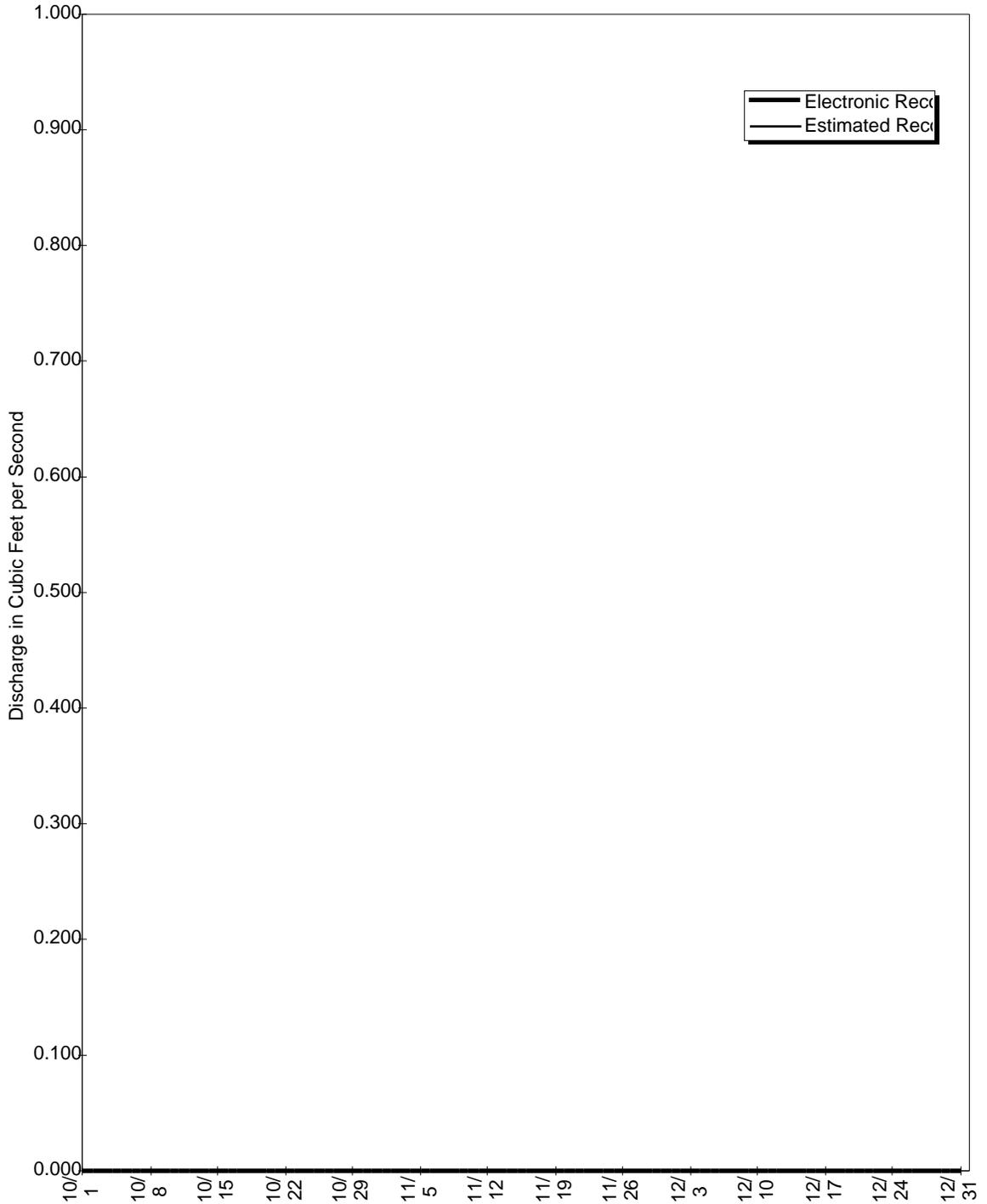


Figure 4-11 Mean Daily Discharge at Gaging Station GS27, Water Year 1997 (October, November, December 1996)

Table 4-12 Gaging Station GS28 Mean Daily Discharge (Cubic Feet per Second)

	October	November	December	January	February	March
Date	1996	1996	1996	1997	1997	1997
1	0.000	0.000	0.000			
2	0.000	0.000	0.000			
3	0.000	0.000	0.000			
4	0.000	0.000	0.000			
5	0.000	0.000	0.000			
6	0.000	0.000	0.000			
7	0.000	0.000	0.000			
8	0.000	0.000	0.000			
9	0.000	0.000	0.000			
10	0.000	0.000	0.000			
11	0.000	0.000	0.000			
12	0.000	0.000	0.000			
13	0.000	0.000	0.000			
14	0.000	0.000	0.000			
15	0.000	0.000	0.000			
16	0.000	0.000	0.000			
17	0.000	0.000	0.000			
18	0.000	0.000	0.000			
19	0.000	0.000	0.000			
20	0.000	0.000	0.000			
21	0.000	0.000	0.000			
22	0.000	0.000	0.000			
23	0.000	0.000	0.000			
24	0.000	0.000	0.000			
25	0.000	0.000	0.000			
26	0.000	0.000	0.000			
27	0.000	0.000	0.000			
28	0.000	0.000	0.000			
29	0.000	0.000	0.000			
30	0.000	0.000	0.000			
31	0.000		0.000			
Mo. Avg. (cfs)	0.000	0.000	0.000			
Monthly Discharge						
Cubic Feet	0	0	0			
Gallons	0	0	0			
Acre- Feet	0.00	0.00	0.00			
<p>Note: Mean flow values are reported to the nearest 0.0001 cfs, values less than 0.00005 cfs are reported as z</p>						

Gaging Station GS28 is located at State Plane 2084010; 749282, at the drainage ditch NE of Building 889 (See Section 4 Map). This location is a Performance Monitoring Location and monitors water draining from the Building 889 area. Storm event samples are collected for selected radionuclides, water quality parameters, and metals.

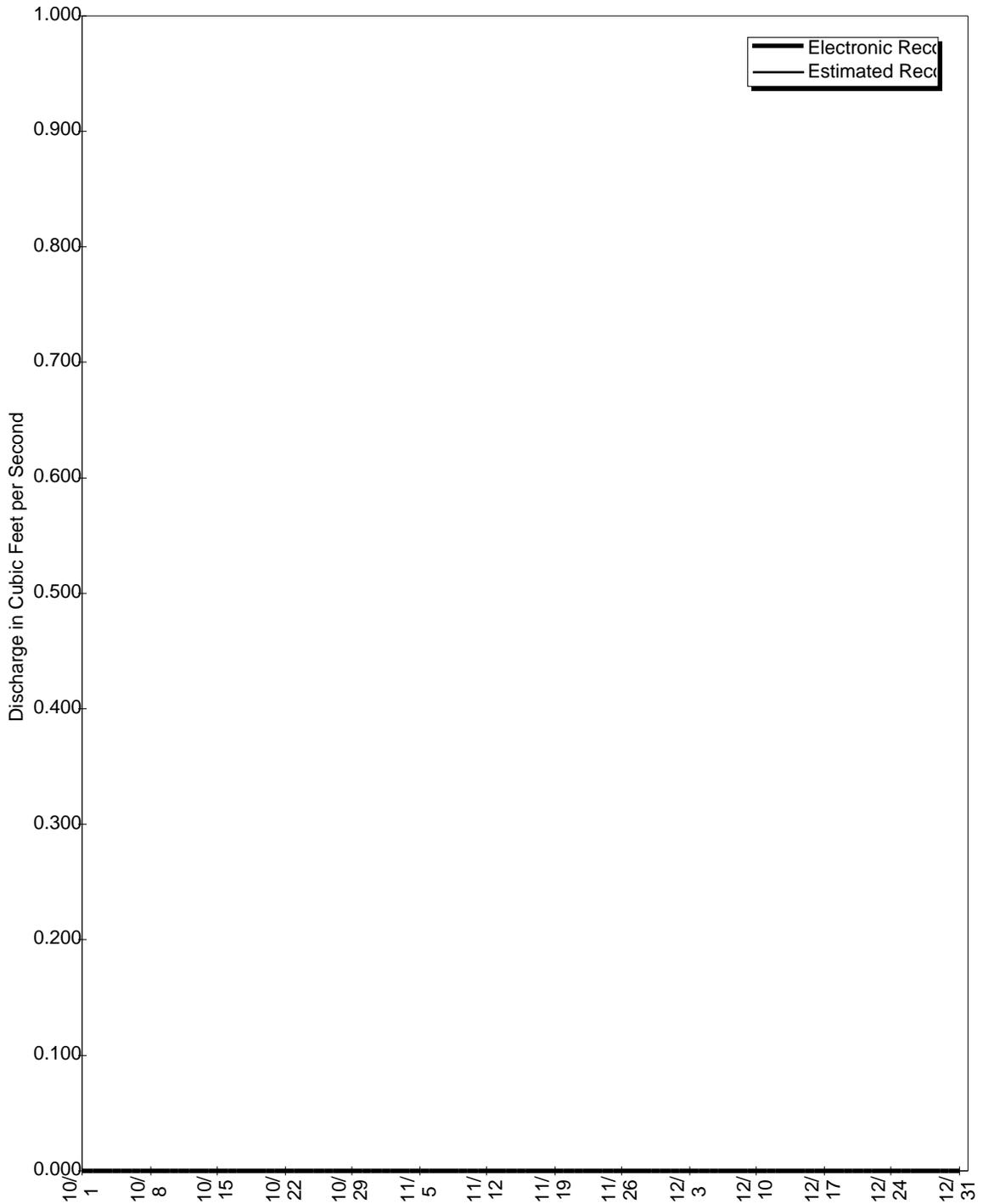


**Figure 4-12 Mean Daily Discharge at Gaging Station GS28, Water Year 1997
(October, November, December 1996)**

Table 4-13 Gaging Station GS31: Mean Daily Discharge (Cubic Feet per Second)

Date	October 1996	November 1996	December 1996	January 1997	February 1997	March 1997
1	0.000	0.000	0.000			
2	0.000	0.000	0.000			
3	0.000	0.000	0.000			
4	0.000	0.000	0.000			
5	0.000	0.000	0.000			
6	0.000	0.000	0.000			
7	0.000	0.000	0.000			
8	0.000	0.000	0.000			
9	0.000	0.000	0.000			
10	0.000	0.000	0.000			
11	0.000	0.000	0.000			
12	0.000	0.000	0.000			
13	0.000	0.000	0.000			
14	0.000	0.000	0.000			
15	0.000	0.000	0.000			
16	0.000	0.000	0.000			
17	0.000	0.000	0.000			
18	0.000	0.000	0.000			
19	0.000	0.000	0.000			
20	0.000	0.000	0.000			
21	0.000	0.000	0.000			
22	0.000	0.000	0.000			
23	0.000	0.000	0.000			
24	0.000	0.000	0.000			
25	0.000	0.000	0.000			
26	0.000	0.000	0.000			
27	0.000	0.000	0.000			
28	0.000	0.000	0.000			
29	0.000	0.000	0.000			
30	0.000	0.000	0.000			
31	0.000		0.000			
Mo. Avg. (cfs)	0.000	0.000	0.000			
Monthly Discharge						
Cubic Feet	0	0	0			
Gallons	0	0	0			
Acre-Feet	0.00	0.00	0.00			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						

Gaging Station GS31 is located at State Plane 2089268; 747506, at the Pond C-2 Outfall (See Section 4 Map). This station is a RFCA Point of Compliance and monitors water discharged from Pond C-2. This station collects samples for selected radionuclides using continuous flow-paced sampling.



**Figure 4-13 Mean Daily Discharge at Gaging Station GS31, Water Year 1997
(October, November, December 1996)**

Table 4-14 Gaging Station SW022 Mean Daily Discharge (Cubic Feet per Second)

	October	November	December	January	February	March
Date	1996	1996	1996	1997	1997	1997
1	0.000	0.000	0.000			
2	0.000	0.000	0.000			
3	0.000	0.000	0.000			
4	0.000	0.000	0.000			
5	0.000	0.000	0.000			
6	0.000	0.000	0.000			
7	0.000	0.000	0.000			
8	0.000	0.000	0.000			
9	0.000	0.000	0.000			
10	0.000	0.000	0.000			
11	0.000	0.000	0.000			
12	0.000	0.000	0.000			
13	0.000	0.000	0.000			
14	0.000	0.000	0.000			
15	0.000	0.000	0.000			
16	0.000	0.000 ^a	0.000 ^a			
17	0.000	0.000 ^a	0.000 ^a			
18	0.000	0.014	0.000 ^a			
19	0.000	0.015	0.000 ^a			
20	0.000	0.000	0.000 ^a			
21	0.000	0.000	0.000 ^a			
22	0.000	0.000	0.000 ^a			
23	0.000	0.000	0.000 ^a			
24	0.000	0.000	0.000 ^a			
25	0.000	0.000	0.000 ^a			
26	0.099	0.000	0.000 ^a			
27	0.000	0.000	0.000			
28	0.000	0.000	0.000			
29	0.000	0.000	0.000			
30	0.000	0.000	0.000			
31	0.000		0.000 ^a			
Mo. Avg. (cfs)	0.003	0.001	0.000			
Monthly Discharge						
Cubic Feet	8,539	2,526	0			
Gallons	63,879	18,893	0			
Acre-Feet	0.20	0.06	0.00			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						

Gaging Station SW022 is located 39° 53'30"N, 105° 11'30"W, at the Central Avenue Ditch at the Inner East Gate (See Section 4 Map). This location is a RFCANew Source Detection Location and monitors water in the Central Avenue Ditch entering the B-Series Ponds and South Walnut Creek. Storm event samples are collected for selected radionuclides.

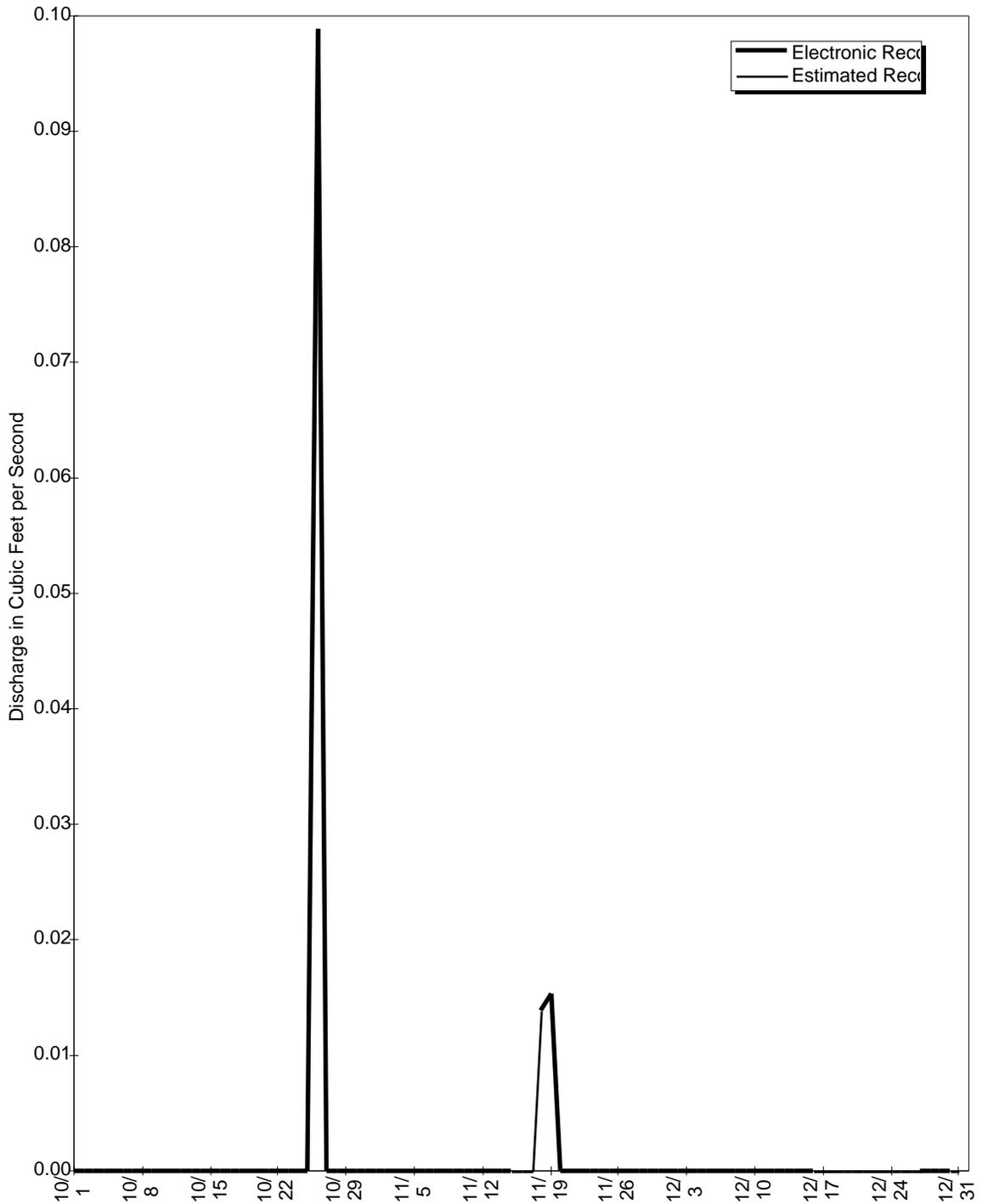


Figure 4-14 Mean Daily Discharge at Gaging Station SW022, Water Year 1997 (October, November, December 1996)

Table 4-15 Gaging Station SW027: Mean Daily Discharge (Cubic Feet per Second)

Date	October 1996	November 1996	December 1996	January 1997	February 1997	March 1997
1	0.000	0.000	0.000			
2	0.000	0.000	0.000			
3	0.000	0.000	0.000			
4	0.000	0.000	0.000			
5	0.000	0.000	0.000			
6	0.000	0.000	0.000			
7	0.000	0.000	0.000			
8	0.000	0.000	0.000			
9	0.000	0.000	0.000			
10	0.000	0.000	0.000			
11	0.000	0.000	0.000			
12	0.000	0.000	0.000			
13	0.000	0.000	0.000			
14	0.000	0.000	0.000			
15	0.000	0.000	0.000			
16	0.000	0.000	0.000			
17	0.000	0.000	0.000			
18	0.000	0.000	0.000			
19	0.000	0.069	0.000			
20	0.000	0.006	0.000			
21	0.000	0.002	0.000			
22	0.000	0.001	0.000			
23	0.000	0.000	0.000			
24	0.000	0.000	0.000			
25	0.000	0.000	0.000			
26	0.000	0.000 ^a	0.000			
27	0.000	0.000 ^a	0.000			
28	0.000	0.000	0.000			
29	0.000	0.000	0.000			
30	0.000	0.000	0.000			
31	0.000		0.000			
Mo. Avg. (cfs)	0.000	0.003	0.000			
Monthly Discharge						
Cubic Feet	0	6,687	0			
Gallons	0	50,024	0			
Acre-Feet	0.000	0.15	0.00			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						

Gaging Station SW027 is located 39° 53' 12"N, 105° 11' 4"W, at the South Interceptor Ditch above Pond C-2 (See Section 4 Map). This station is a RFCA Action Level Framework and a New Source Detection Location and monitors water in the South Interceptor Ditch entering Pond C-2. This station collects samples for selected radionuclides, metals, and water quality parameters using continuous flow-paced sampling.

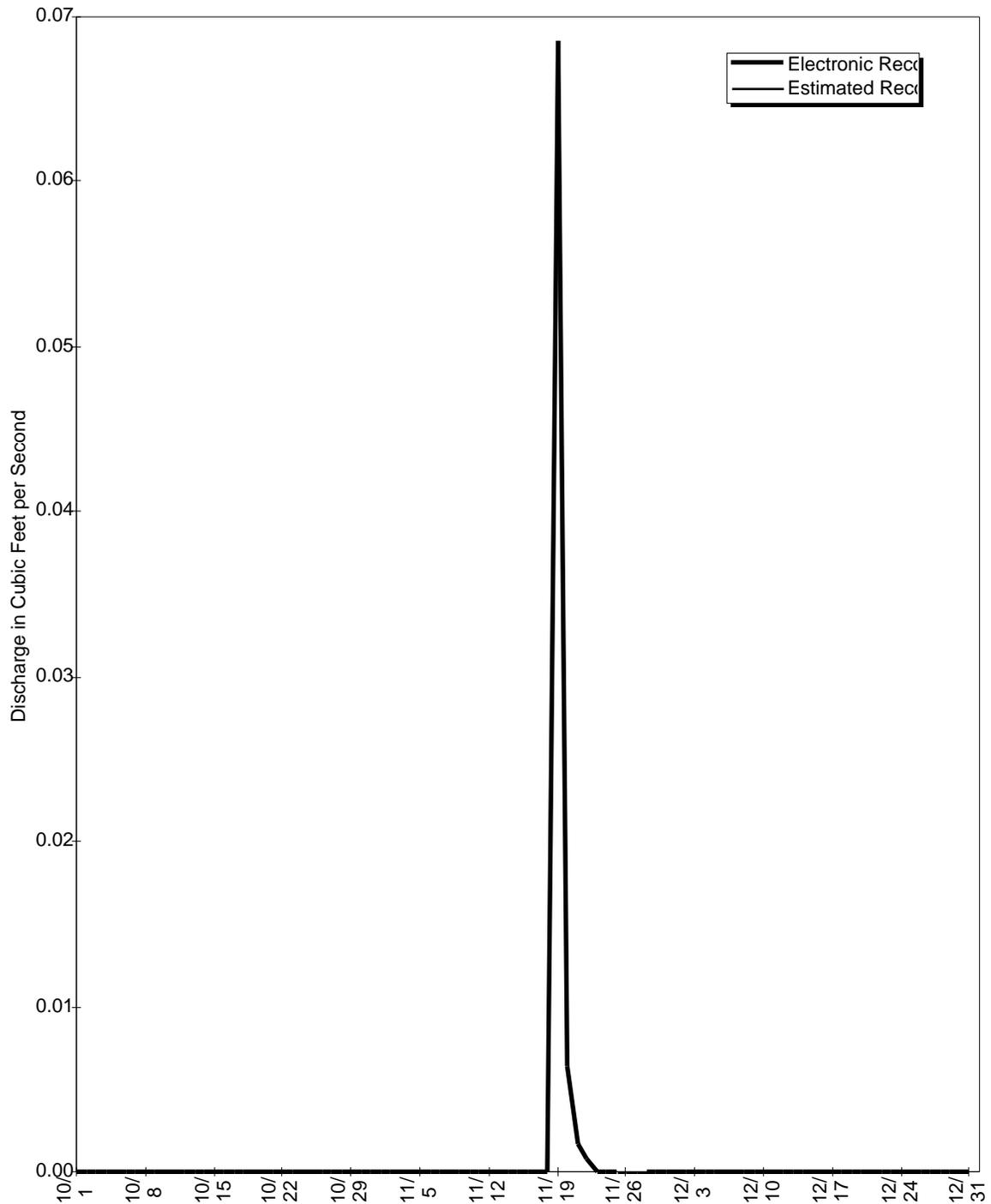
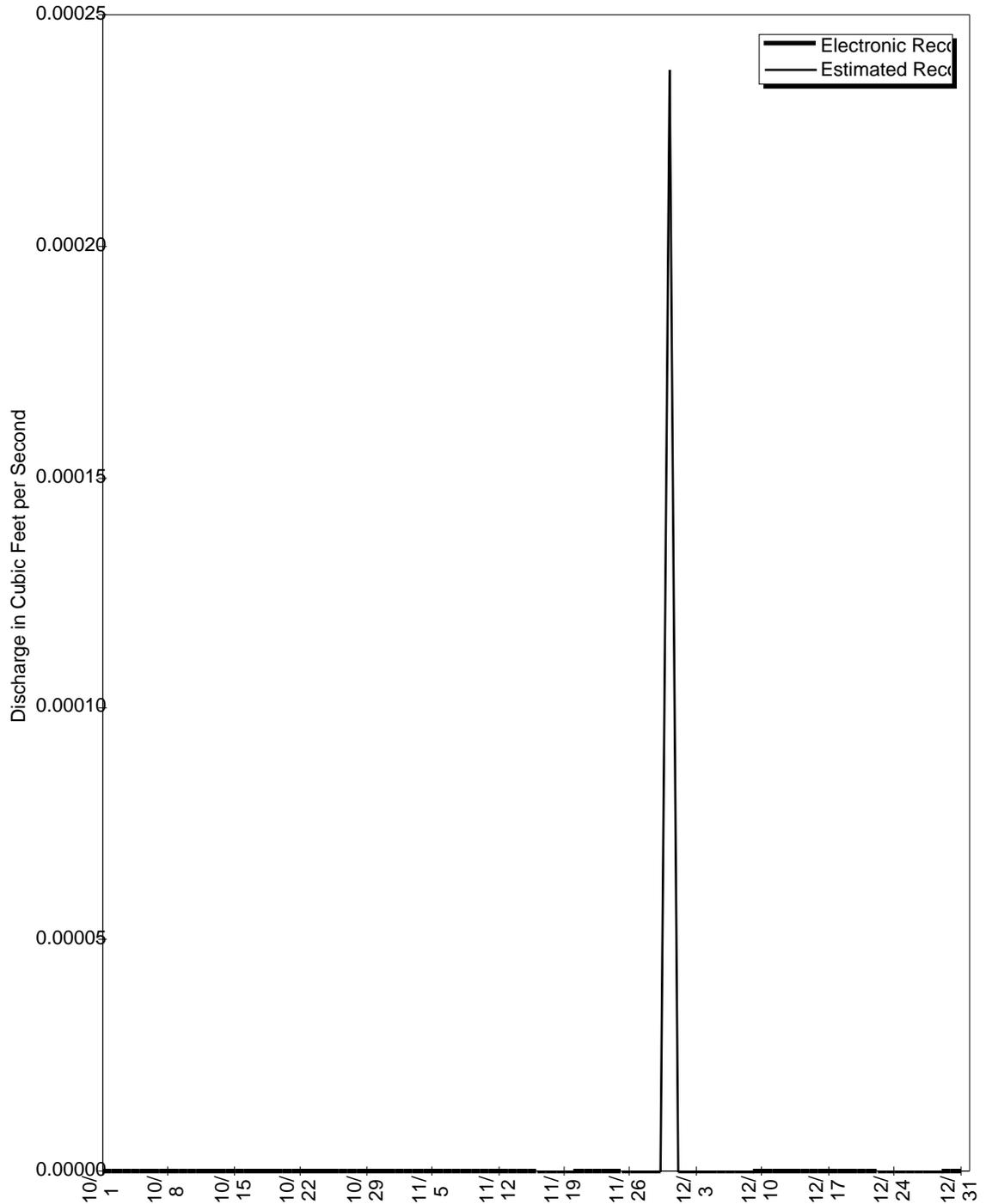


Figure 4-15 Mean Daily Discharge at Gaging Station SW027, Water Year 1997 (October, November, December 1996)

Table 4-16 Gaging Station SW091: Mean Daily Discharge (Cubic Feet per Second)

Date	October 1996	November 1996	December 1996	January 1997	February 1997	March 1997
1	0.0000	0.0000	0.0000 ^a			
2	0.0000	0.0000	0.0000 ^a			
3	0.0000	0.0000	0.0000 ^a			
4	0.0000	0.0000	0.0000 ^a			
5	0.0000	0.0000	0.0000 ^a			
6	0.0000	0.0000	0.0000			
7	0.0000	0.0000	0.0000 ^a			
8	0.0000	0.0000	0.0000 ^a			
9	0.0000	0.0000	0.0000			
10	0.0000	0.0000	0.0000			
11	0.0000	0.0000	0.0000			
12	0.0000	0.0000	0.0000			
13	0.0000	0.0000	0.0000			
14	0.0000	0.0000	0.0000			
15	0.0000	0.0000	0.0000			
16	0.0000	0.0000	0.0000			
17	0.0000	0.0000 ^a	0.0000			
18	0.0000	0.0000 ^a	0.0000			
19	0.0000	0.0000 ^a	0.0000			
20	0.0000	0.0000	0.0000			
21	0.0000	0.0000	0.0000			
22	0.0000	0.0000	0.0000			
23	0.0000	0.0000	0.0000 ^a			
24	0.0000	0.0000	0.0000 ^a			
25	0.0000	0.0000	0.0000 ^a			
26	0.0000	0.0000 ^a	0.0000 ^a			
27	0.0000	0.0000 ^a	0.0000			
28	0.0000	0.0000 ^a	0.0000 ^a			
29	0.0000	0.0000 ^a	0.0000			
30	0.0000	0.0002 ^a	0.0000			
31	0.0000		0.0000			
Mo. Avg. (cfs)	0.0000	0.0000	0.0000			
Monthly Discharge						
Cubic Feet	0	21	0			
Gallons	0	154	0			
Acre- Feet	0.00	0.00	0.00			
<p>Note: Mean flow values are reported to the nearest 0.0001 cfs, values less than 0.00005 cfs are reported as z</p>						

Gaging Station SW091 is located at State Plane 2086064; 751322, along the drainage NE of the Solar Ponds draining to the A-Series Ponds (See Section 4 Map). This location is a RFCANew Source Detection Location and monitors water draining from the area NE of the Solar Ponds. Storm event samples are collected for selected radionuclides.



**Figure 4-16 Mean Daily Discharge at Gaging Station SW091, Water Year 1997
(October, November, December 1996)**

Table 4-17 Gaging Station SW093: Mean Daily Discharge (Cubic Feet per Second)

Date	October 1996	November 1996	December 1996	January 1997	February 1997	March 1997
1	0.050	0.056	0.085			
2	0.042	0.043	0.070			
3	0.045	0.045	0.049			
4	0.044	0.045	0.048			
5	0.045	0.046	0.060			
6	0.046	0.051	0.061			
7	0.052	0.051	0.052			
8	0.051	0.053	0.056			
9	0.049	0.051	0.057			
10	0.052	0.056	0.060			
11	0.055	0.057	0.051			
12	0.052	0.053	0.053			
13	0.053	0.050	0.050			
14	0.061	0.051	0.052			
15	0.057	0.061	0.048			
16	0.060	0.113	0.048			
17	0.081	0.114	0.054			
18	0.065	0.176	0.096			
19	0.065	0.235	0.058 ^a			
20	0.158	0.098	0.066 ^a			
21	0.066	0.073	0.070 ^a			
22	0.064	0.064	0.073 ^a			
23	0.062	0.058	0.066 ^a			
24	0.065	0.059	0.065 ^a			
25	0.060	0.052	0.067 ^a			
26	0.317	0.050	0.064 ^a			
27	0.078	0.106	0.068 ^a			
28	0.073	0.069	0.064 ^a			
29	0.069	0.062	0.065 ^a			
30	0.046	0.133	0.064 ^a			
31	0.051		0.053			
Mo. Avg. (cfs)	0.069	0.074	0.061			
Monthly Discharge						
Cubic Feet	184,220	192,887	163,544			
Gallons	1,378,064	1,442,893	1,223,395			
Acre-Feet	4.23	4.43	3.75			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						

Gaging Station SW093 is located 39° 53'51"N, 105° 11'48"W, along North Walnut Creek at the 72" culvert 1000 feet above the Pond A-1 Bypass (See Section 4 Map). This station is a RFAA Action Level Framework and a New Source Detection Location and monitors water leaving the Site Industrial Area and entering the A-Series Ponds and North Walnut Creek. This station collects samples for selected radionuclides, metals, and water quality parameters using continuous flow-paced sampling.

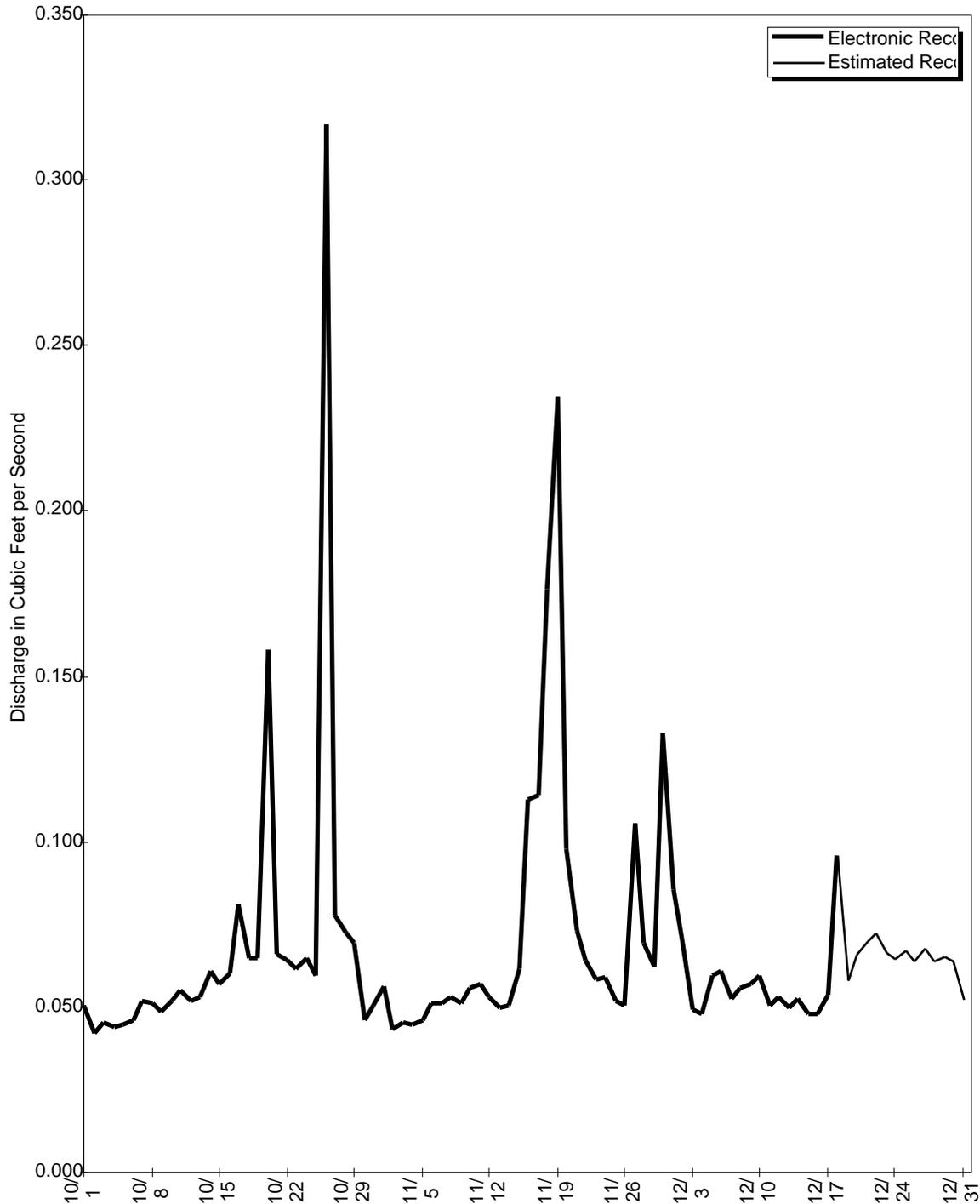
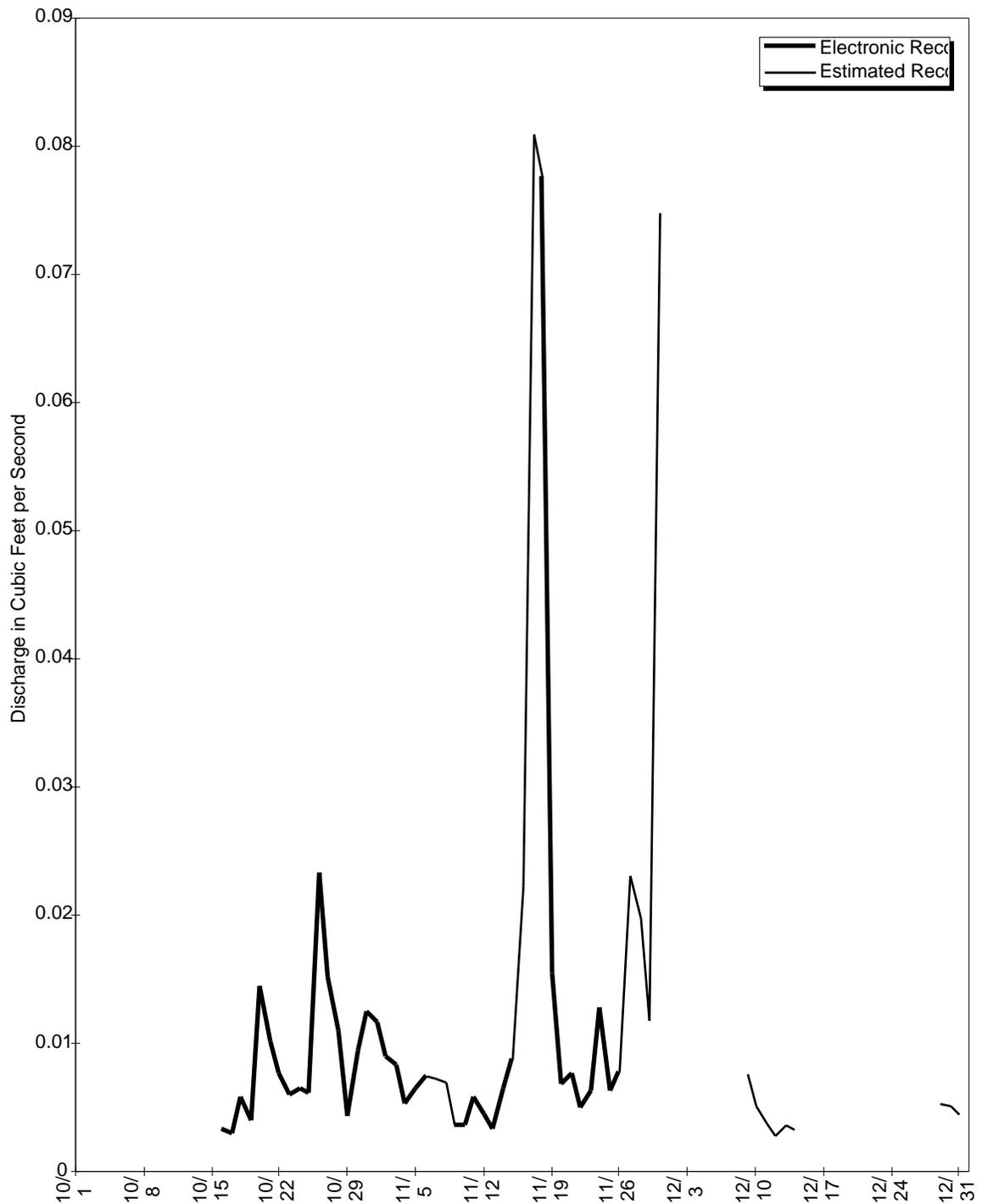


Figure 4-17 Mean Daily Discharge at Gaging Station SW093, Water Year 1997 (October, November, December 1996)

Table 4-18 Gaging Station SW118: Mean Daily Discharge (Cubic Feet per Second)

	October	November	December	January	February	March
Date	1996	1996	1996	1997	1997	1997
1	a	0.012	c			
2	a	0.009	c			
3	a	0.008	c			
4	a	0.005	c			
5	a	0.007	c			
6	a	0.007	c			
7	a	0.007 ^b	c			
8	a	0.007 ^b	0.008 ^b			
9	a	0.004	0.005 ^b			
10	a	0.004	0.004 ^b			
11	a	0.006	0.003 ^b			
12	a	0.004	0.004 ^b			
13	a	0.003	0.003 ^b			
14	a	0.007	c			
15	a	0.009	c			
16	0.003	0.022 ^b	c			
17	0.003	0.081 ^b	c			
18	0.006	0.078	c			
19	0.004	0.015	c			
20	0.014	0.007	c			
21	0.010	0.008	c			
22	0.008	0.005	c			
23	0.006	0.006	c			
24	0.006	0.013	c			
25	0.006	0.006	c			
26	0.023	0.008	c			
27	0.015	0.023 ^b	c			
28	0.011	0.020 ^b	c			
29	0.004	0.012 ^b	0.005 ^b			
30	0.010	0.075	0.005 ^b			
31	0.012		0.004 ^b			
Mo. Avg. (cfs)	0.009	0.016	0.005			
Monthly Discharge						
Cubic Feet	12,399	41,299	3,583			
Gallons	92,754	308,935	26,800			
Acre- Feet	0.28	0.95	0.08			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						
<p>^a No available data for these dates.</p>						

Gaging Station SW118 is located 39° 53'47"N, 105° 12'16"W, along North Walnut Creek above Portal 3 (See Section 4 Map). This station is a Buffer Zone Monitoring Location and monitors water leaving the NW portion of the Site Industrial Area and entering North Walnut Creek. No samples are collected at this location.



**Figure 4-18 Mean Daily Discharge at Gaging Station SW118, Water Year 1997
(October, November, December 1996)**

Table 4-19 Gaging Station SW134: Mean Daily Discharge (Cubic Feet per Second)

	October	November	December	January	February	March
Date	1996	1996	1996	1997	1997	1997b
1	a	0.000	0.000 ^a			
2	a	0.000	0.000			
3	a	0.000	0.000			
4	a	0.046	0.000 ^b			
5	a	0.000	0.000			
6	a	0.000	0.000			
7	a	0.000	0.000			
8	a	0.000 ^b	0.000			
9	a	0.000	0.000			
10	a	0.000	0.000			
11	a	0.034	0.000			
12	a	0.000	0.000			
13	a	0.000	0.000			
14	a	0.000	0.000			
15	a	0.000	0.000			
16	a	0.000	0.000			
17	a	0.000	0.000			
18	a	0.000	0.000			
19	a	0.000	0.000			
20	a	0.045	0.000			
21	a	0.000	0.000			
22	a	0.000	0.000			
23	a	0.000	0.000			
24	0.000	0.000 ^b	0.000			
25	0.000	0.000	0.000			
26	0.000	0.000	0.000			
27	0.000	0.000	0.000			
28	0.039	0.000 ^b	0.000			
29	0.000	0.000 ^b	0.000			
30	0.000	0.000 ^b	0.000			
31	0.000		0.000			
Mo. Avg. (cfs)	0.005	0.004	0.000			
Monthly Discharge						
Cubic Feet	3,328	10,879	0			
Gallons	24,895	81,380	0			
Acre-Feet	0.08	0.25	0.00			
<p>Note: Mean flow values are reported to the nearest 0.001 cfs, values less than 0.0005 cfs are reported as zero.</p>						

Gaging Station SW134 is located 39° 53'31"N, 105° 13'44"W, at Rock Creek below Jefferson County Gravel Pit (See Section 4 Map). This station is a Buffer Zone Monitoring Location and monitors water pump discharged from gravel pits and entering Rock Creek. Storm event samples are collected for selected water quality parameters, metals, and major ions.

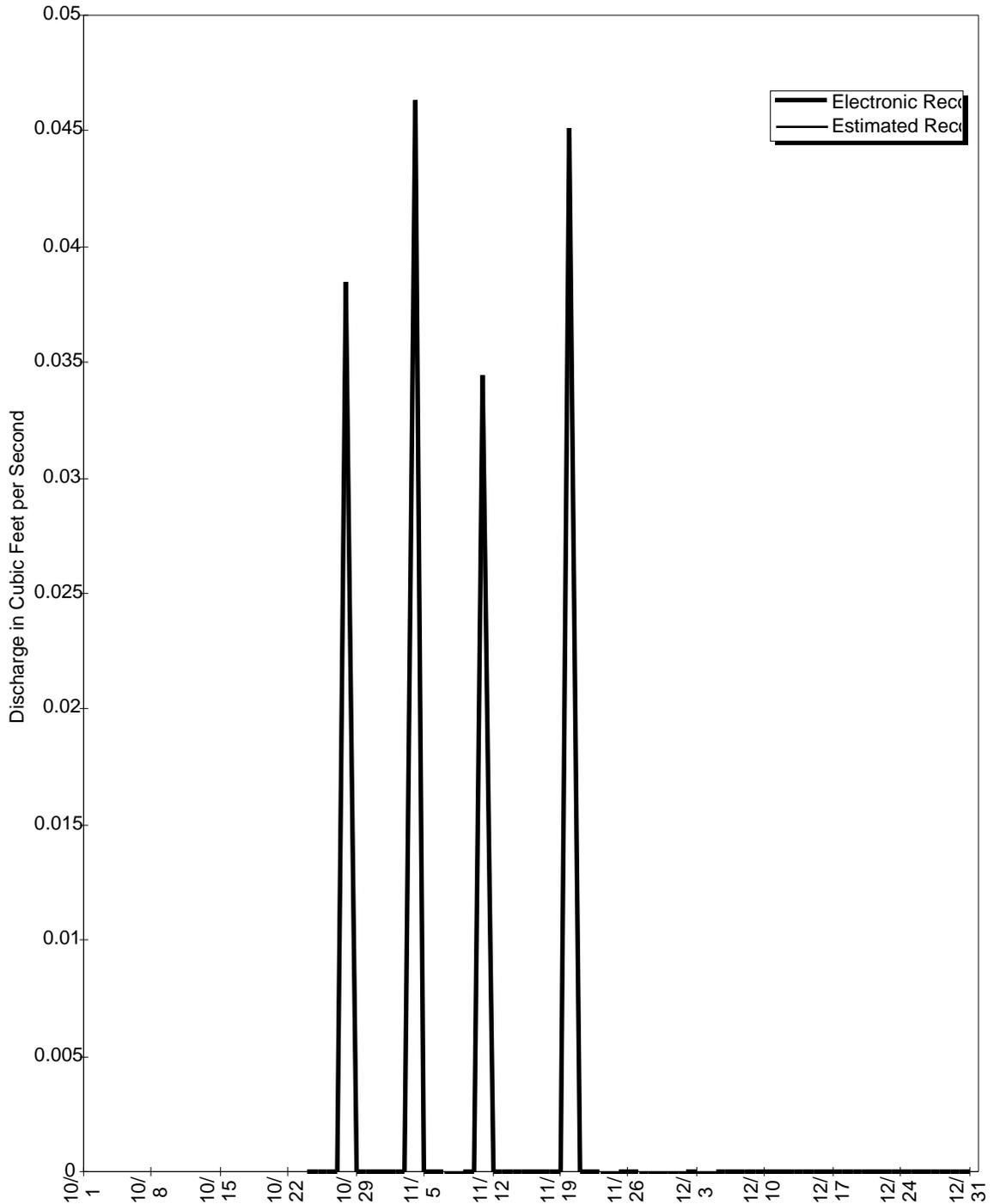


Figure 4-19 Mean Daily Discharge at Gaging Station SW134, Water Year 1997 (October, November, December 1996)

Section 4.2: Water Quality Data

Table 4-20 Radionuclides, 4th Quarter 1996

Loc	Sample Date	Pu-239, -240 (pCi/l)	Am-241 (pCi/l)	Total U (pCi/l)	Tritium (pCi/l)
GS01	11/18/96 - 12/03/96	0.017	0.039	a	b
GS01	12/03/96 - 12/30/96	0.002	0.000	a	25
GS03	10/14/96 - 12/20/96	0.015	0.014	a	0
GS03	12/20/96 - 12/23/96	0.003	0.004	a	0
GS03	12/23/96 - 12/26/96	0.006	0	a	0
GS03	12/26/96 - 12/30/96	0.001	0.001	a	0
GS10	10/01/96 - 10/16/96	0.032	0.026	4.284	a
GS10	10/16/96 - 10/31/96	0.077	0.067	2.579	a
GS10	10/31/96 - 11/11/96	0.030	0.024	3.180	a
GS10	11/11/96 - 11/20/96	0.037	0.036	2.403	a
GS10	11/20/96 - 12/03/96	0.057	0.043	3.389	a
GS10	12/03/96 - 12/20/96	0.064	0.073	3.610	a
GS10	12/20/96 - 01/03/96	0.027	0.031	0.520	a
GS11	12/20/96 - 12/23/96	0.001	0.006	2.101	a
GS11	12/23/96 - 12/26/96	0.002	0.002	1.388	a
GS11	12/26/96 - 12/30/96	0.001	0.002	2.253	a
SW022	10/26/96	0.029	0.008	0.237	a
SW027	10/01/96 - 12/31/96	d	d	d	a
SW093	10/01/96 - 10/15/96	0.091	0.020	6.601	a
SW093	10/15/96 - 10/24/96	0.018	0.007	6.640	a
SW093	10/24/96 - 10/31/96	0.160	0.020	4.180	a

^a Not applicable.
^b Not collected.
^c Incomplete laboratory analysis.
^d Non-sufficient quantity for analysis.

Table 4-21 Metals, 4th Quarter 1996

Loc	Sample Date	Be ($\mu\text{g/L}$)	Dissolved Cd ($\mu\text{g/L}$)	Cr ($\mu\text{g/L}$)	Dissolved Ag ($\mu\text{g/L}$)
GS10	10/01/96 - 10/16/96	e	b	e	b
GS10	10/16/96 - 10/31/96	e	b	e	b
GS10	10/31/96 - 11/11/96	e	b	e	b
GS10	11/11/96 - 11/20/96	e	b	e	b
GS10	11/20/96 - 12/03/96	e	b	e	b
GS10	12/03/96 - 12/20/96	c	c	c	c
GS10	12/20/96 - 01/03/96	c	c	c	c
SW027	10/01/96 - 12/31/96	d	d	d	d
SW093	10/01/96 - 10/15/96	e	b	e	b
SW093	10/15/96 - 10/24/96	e	b	e	b
SW093	10/24/96 - 10/31/96	e	b	e	b
SW093	10/31/96 - 11/11/96	e	b	e	b
SW093	11/11/96 - 11/19/96	e	b	e	b

- ^a Not applicable.
- ^b Not collected.
- ^c Incomplete laboratory analysis.
- ^d Non-sufficient quantity for analysis.
- ^e Not detected.

Table 4-22 Water Quality Parameters, 4th Quarter 1996

Loc	Sample Date	Hardness (mg/l)
GS10	10/01/96 - 10/16/96	195
GS10	10/16/96 - 10/31/96	130
GS10	10/31/96 - 11/11/96	178
GS10	11/11/96 - 11/20/96	140
GS10	11/20/96 - 12/03/96	185
GS10	12/03/96 - 12/20/96	^c
GS10	12/20/96 - 01/03/96	^c
SW027	10/01/96 - 12/31/96	^d
SW093	10/01/96 - 10/15/96	314
SW093	10/15/96 - 10/24/96	310
SW093	10/24/96 - 10/31/96	234
SW093	10/31/96 - 11/11/96	328
SW093	11/11/96 - 11/19/96	232
SW093	11/19/96 - 12/03/96	270
SW093	12/03/96 - 12/16/96	^c
SW093	12/16/96 - 12/30/96	^d

^a Not applicable.
^b Not collected.
^c Incomplete laboratory analysis.
^d Non-sufficient quantity for analysis.

Section 5: Groundwater Data

Table 5-1 Dissolved Metals Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a ($\mu\text{g/L}$)	Detection Limit ^b
06491	Bedrock	GW05002TE	04/08/96	Barium	20.4	200
				Calcium	24400	5000
				Chromium	5.2	10
				Lithium	178	100
				Magnesium	8110	5000
				Nickel	6.5	40
				Potassium	3320	5000
				Selenium	31.9	5
				Sodium	278000	5000
10394	Alluvium	GW05007TE	04/08/96	Barium	108	200
				Calcium	71400	5000
				Chromium	5.2	10
				Lithium	15.2	100
				Magnesium	20700	5000
				Nickel	6.5	40
				Potassium	1800	5000
				Selenium	15.7	5
				Sodium	59600	5000
41691	Alluvium	GW05019TE	05/02/96	Barium	131	200
				Calcium	76800	5000
				Chromium	3.3	10
				Lithium	22.5	100
				Magnesium	18300	5000
				Nickel	7.8	40
				Potassium	5220	5000
				Selenium	4	5
				Sodium	65800	5000
41591	Alluvium	GW05018TE	05/09/96	Barium	144	200
				Calcium	43400	5000
				Chromium	3.3	10
				Lithium	106	100
				Magnesium	82900	5000
				Nickel	7.8	40
				Potassium	364	5000
				Sodium	141000	5000
				Selenium	30.3	5

*Table 5-1 Dissolved Metals Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)*

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
0386	Bedrock	GW05131TE	06/ 12/ 96	Barium	215	200
				Calcium	88900	5000
				Chromium	3.3	10
				Lithium	84.1	100
				Magnesium	33200	5000
				Nickel	7.8	40
				Potassium	2530	5000
				Sodium	59900	5000
				Selenium	79.6	5
41591	Alluvium	GW05205TE	07/ 30/ 96	Aluminum	25.4	25.4
				Antimony	28.4	28.4
				Arsenic	3.3	10
				Barium	138	39.5
				Beryllium	1	1
				Cadmium	4.2	4.2
				Calcium	36600	103
				Cesium	200	1000
				Chromium	6.1	6.1
				Cobalt	4.4	4.4
				Copper	3.5	3.5
				Iron	35	35
				Lead	3	5
				Lithium	114	100
				Magnesium	71800	44.1
				Manganese	5.2	5.2
				Mercury	0.2	0.2
				Molybdenum	10.2	200
				Nickel	10.2	10.2
				Potassium	394	96.1
				Selenium	8	5
				Silicon	5050	100
				Silver	3.7	3.7
Sodium	128000	975				
Strontium	1700	200				
Thallium	10.8	10				
Tin	28	200				
Vanadium	3.2	3.2				
Zinc	4	4				
06491	Bedrock	GW05183TE	08/ 19/ 96	Aluminum	25.4	25.4
				Antimony	28.4	28.4

*Table 5-1 Dissolved Metals Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)*

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a ($\mu\text{g/L}$)	Detection Limit ^b
06491 (Continued)						
				Copper	3.5	3.5
				Iron	35	35
				Lead	3	5
				Lithium	202	100
				Magnesium	10900	44.1
				Manganese	5.2	5.2
				Mercury	0.2	0.2
				Molybdenum	13.5	200
				Nickel	10.2	10.2
				Potassium	4300	96.1
				Selenium	4.1	5
				Silicon	7090	100
				Silver	3.7	3.7
				Sodium	327000	975
				Strontium	543	200
				Thallium	6	10
				Tin	63.5	200
				Vanadium	4.8	3.2
				Zinc	4	4
^a Where there are no results listed, the following codes indicate the reason: NN = Analysis Not Required						

*Table 5-2 Water Quality Parameters Detected in Boundary Wells
(2nd, 3rd, and 4th Quarters 1996)*

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (mg/L)	Detection Limit ^b
06491	Bedrock	GW05002TE	04/08/96	Bicarbonate As CaCO ₃	453	10
				Carbonate As CaCO ₃	0.22	10
				Chloride	39.4	5
				Nitrate/ Nitrite	0.73	0.05
				Sulfate	246	50
				Total Dissolved Solids	981	10
10394	Alluvium	GW05007TE	04/08/96	Bicarbonate As CaCO ₃	217	10
				Carbonate As CaCO ₃	0.22	10
				Chloride	43.5	5
				Nitrate/ Nitrite	0.041	0.05
				Sulfate	93.2	10
				Total Dissolved Solids	459	10
41691	Alluvium	GW05019TE	05/02/96	Bicarbonate As CaCO ₃	179	10.0
				Carbonate As CaCO ₃	0.22	10.0
				Chloride	99.4	10.0
				Nitrate/ Nitrite	0.010	0.050
				Sulfate	61.1	10.0
				Total Dissolved Solids	480	10.0
41591	Alluvium	GW05018TE	05/09/96	Bicarbonate As CaCO ₃	363	10
				Carbonate As CaCO ₃	0.22	10
				Chloride	147	25
				Nitrate/ Nitrite	1	0.1
				Sulfate	125	25
				Total Dissolved Solids	779	10
B202589	Alluvium	GW05091TE	05/09/96	Bicarbonate As CaCO ₃	156	10
				Carbonate As CaCO ₃	0.22	10
				Chloride	11.5	5
				Nitrate/ Nitrite	0.01	0.05
				Sulfate	37.9	5
				Total Dissolved Solids	243	10
0386	Bedrock	GW05131TE	06/12/96	Bicarbonate As CaCO ₃	286	10.0
				Carbonate As CaCO ₃	0.22	10.0
				Chloride	42.2	5
				Nitrate/ Nitrite	3.3	0.25
				Sulfate	100	10.0
				Total Dissolved Solids	533	10
41591	Alluvium	GW05205TE	07/30/96	Bicarbonate As CaCO ₃	338	10
				Carbonate As CaCO ₃	0.83	10
				Chloride	135	25
				Nitrate/ Nitrite	0.32	0.05
				Sulfate	73.3	10
				Total Dissolved Solids	664	10
10394	Alluvium	GW05189TE	08/26/96	Nitrate/ Nitrite	0.01	0.05
10294	Alluvium	GW05260TE	09/17/96	Bicarbonate As CaCO ₃	613	10
				Carbonate As CaCO ₃	0.83	10
				Chloride	117	25
				Nitrate/ Nitrite	0.01	0.05
				Sulfate	606	100
				Total Dissolved Solids	1800	10
41691	Alluvium	GW05206TE	09/19/96	Bicarbonate As CaCO ₃	207	10
				Carbonate As CaCO ₃	0.83	10
				Chloride	70.2	10
				Nitrate/ Nitrite	0.22	0.05
				Sulfate	54.1	10
				Total Dissolved Solids	459	10

**Table 5-2 Water Quality Parameters Detected in Boundary Wells
(2nd, 3rd, and 4th Quarters 1996) (Continued)**

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (mg/L)	Detection Limit ^b
0386	Bedrock	GW05180TE	09/24/96	Bicarbonate As CaCO ₃	300	10
				Carbonate As CaCO ₃	0.83	10
				Chloride	40	5
				Nitrate/ Nitrite	3.4	0.25
				Sulfate	98.4	10
				Total Dissolved Solids	520	10
0386	Bedrock	GW05330TE	10/25/96	Bicarbonate As CaCO ₃	298	10
				Carbonate As CaCO ₃	0.83	10
				Chloride	39.6	5
				Nitrate/ Nitrite	3.1	0.1
				Sulfate	99.3	10
				Total Dissolved Solids	531	10
0386	Bedrock	GW05331TE	10/25/96	Bicarbonate As CaCO ₃	305	10
				Carbonate As CaCO ₃	0.83	10
				Chloride	39.9	5
				Nitrate/ Nitrite	3.3	0.1
				Sulfate	98.7	10
				Total Dissolved Solids	538	10
06491	Bedrock	GW05357TE	11/11/96	Bicarbonate As CaCO ₃	474	10
				Carbonate As CaCO ₃	0.83	10
				Chloride	40.1	5
				Nitrate/ Nitrite	0.81	0.05
				Sulfate	282	50
				Total Dissolved Solids	1020	10
10394	Alluvium	GW05360TE	11/18/96	Bicarbonate As CaCO ₃	261	10
				Carbonate As CaCO ₃	0.83	10
				Chloride	101	25
				Nitrate/ Nitrite	1.2	0.05
				Sulfate	202	25
				Total Dissolved Solids	726	10
41691	Alluvium	GW05386TE	11/14/96	Bicarbonate As CaCO ₃	188	10
				Carbonate As CaCO ₃	0.83	10
				Chloride	65.8	10
				Nitrate/ Nitrite	0.01	0.05
				Sulfate	49.8	5
				Total Dissolved Solids	374	10

^a Where there are no results listed, the following codes indicate the reason:

NN = Analysis Not Required
 NR = Analysis Not Received from Laboratory
 NS = Not Sampled
 NSD = No Sample Remained for Analysis

^b Detection limits are based on the contract required detection limit (CRDL) specified in General Radiochemistry and Routine Analytical Services Protocol (GRRASP) Version 2.1.

Table 5-3 Radionuclides Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (pCi/L)	Error	Detection Limit ^b
06491	Alluvium	GW05002TE	04/08/96	Americium-241	.006884	.00653	.00926
				Gross Alpha	22.14	5.19	1.95
				Gross Beta	10.39	3.49	5.83
				Plutonium-238	.0007628	.00274	.00718
				Plutonium-239/240	.001524	.00387	.00872
				Radium-226	.0824	.0772	.123
				Radium-228	.509	.239	.318
				Tritium	169.6	211	310
				Uranium-233,-234	15.32	2.8	.193
				Uranium-235	.4188	.274	.17
				Uranium-238	9.877	1.96	.17
				41591	Alluvium	GW05018TE	05/09/96
Gross Alpha	14.73	3.56	1.96				
Gross Beta	8.676	2.4	3.67				
Plutonium-238	0	.00284	.00256				
Plutonium-239/240	.001322	.00361	.00812				
Radium-226	.2478	.0974	.12				
Radium-228	.8029	.311	.45				
Tritium	74.91	201	307				
Uranium-233,-234	10.26	2.07	.305				
Uranium-235	.3851	.273	.237				
Uranium-238	7.883	1.69	.237				
10394	Alluvium	GW05007TE	04/08/96				
				Gross Alpha	8.448	2.31	1.6
				Gross Beta	9.428	2.38	3.53
				Plutonium-238	0.003519	0.00459	0.00755
				Plutonium-239/240	0.006591	0.00237	0.0062
				Radium-226	0.09285	0.0508	0.0622
				Radium-228	0.596	0.283	0.459
				Tritium	132.6	208	310
				Uranium-233,-234	6.522	1.52	0.366
				Uranium-235	0.2803	0.239	0.219
				Uranium-238	5.685	1.38	0.297
				41691	Alluvium	GW05019TE	04/09/96
Gross Alpha	1.494	.785	.861				
Gross Beta	3.215	1.69	3.14				
Plutonium-238	.001627	.00299	.00574				
Plutonium-239/240	.06339	.0176	.00873				
Radium-226	.1872	.0564	.0326				
Radium-228	.6787	.328	.51				
Tritium	-66.1	192	302				
Uranium-233,-234	1.881	.71	.355				
Uranium-235	-.00426	.00856	.214				
Uranium-238	1.179	.547	.377				
B202589	Alluvium	GW05091TE	05/09/96				
				Gross Alpha	1.646	0.685	0.473
				Gross Beta	2.808	1.69	3.26
				Plutonium-238	0.001199	0.00431	0.0113
				Plutonium-239/240	0.01467	0.00527	0.0138
				Radium-226	0.1066	0.0664	0.0983
				Radium-228	1.06	0.382	0.484
				Tritium	-102	209	333
				Uranium-233,-234	1.432	0.604	0.362
				Uranium-235	0.08001	0.151	0.312
				Uranium-238	1.259	0.555	0.212

**Table 5-3 Radionuclides Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)**

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (pCi/L)	Error	Detection Limit ^b
0386	Bedrock	GW05131TE	06/12/96	Americium-241	0.001	0.002	0.006
				Gross Alpha	5.181	2.060	1.680
				Gross Beta	10.870	2.180	2.980
				Plutonium-238	0.004	0.005	0.008
				Plutonium-239/240	0.001	0.002	0.009
				Radium-226	0.231	0.074	0.050
				Radium-228	0.596	0.324	0.521
				Tritium	37.990	194	294
				Uranium-233,-234	11.230	2.290	0.220
				Uranium-235	0.241	0.219	0.131
				Uranium-238	7.474	1.670	0.194
10394	Alluvium	GW05189TE	08/26/96	Tritium	-51.0	110.0	260.0
41591	Alluvium	GW05205TE	07/30/96	Americium-241	0.009563	.00377	.00933
				Gross Alpha	6.373	2.51	2.53
				Gross Beta	6.875	2.54	4.28
				Plutonium-238	.002347	.00432	.00828
				Plutonium-239/240	.002637	.00547	.0114
				Radium-226	.298	.0792	.0635
				Radium-228	.2993	.298	.556
				Tritium	144.9	208	307
				Uranium-233,-234	7.849	1.78	.274
				Uranium-235	.3558	.278	.207
				Uranium-238	5.758	1.42	.139
41691	Alluvium	GW05206TE	09/19/96	Tritium	25.0	100.0	240.0
10294	Alluvium	GW05260TE	09/17/96	Tritium	74.0	100.0	240.0
0386	Bedrock	GW05330TE	10/25/96	Americium-241	0.0063860	.00229	0.00601
				Gross Alpha	25.62	6.25	3.4
				Gross Beta	10.91	2.94	4.53
				Plutonium-238	0.00118	0.00137	0.00766
				Plutonium-239/240	0.0019630	0.002250	0.00674
				Radium-226	0.2593	0.0924	0.109
				Radium-228	0.5325	0.235	0.298
				Tritium	51	100	250
				Uranium-233,-234	11.22	2.33	0.137
				Uranium-235	0.2889	0.231	0.213
				Uranium-238	7.967	1.79	0.204
0386	Bedrock	GW05331TE	10/25/96	Americium-241	0.0002540	.00309	0.0099
				Gross Alpha	16.51	5	4.2
				Gross Beta	10.89	2.95	4.54
				Plutonium-238	0.004032	0.00445	0.00659
				Plutonium-239/240	0.0019190	0.002210	0.00659
				Radium-226	0.3526	0.0988	0.0759
				Radium-228	0.5776	0.274	0.369
				Tritium	150	110	250
				Uranium-233,-234	11.49	2.31	0.289
				Uranium-235	0.4588	0.304	0.213
				Uranium-238	8.059	1.75	0.213

*Table 5-3 Radionuclides Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)*

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (pCi/L)	Error	Detection Limit ^b
06491	Alluvium	GW05357TE	11/11/96	Tritium	16.0	110.0	250.0
41691	Alluvium	GW05386TE	11/14/96	Tritium	54.0	110.0	250.0
10394	Alluvium	GW05360TE	11/18/96	Tritium	140.0	110.0	250.0

^a Where there are no results listed, the following codes indicate the reason:

- NN = Analysis Not Required
- NR = Analysis Not Received from Laboratory
- NS = Not Sampled
- NSD = No Sample Remained for Analysis

^b Detection limits are based on the contract required detection limit (CRDL) specified in General Radiochemistry and Routine Analytical Services Protocol (GRRASP) Version 2.1.

Note: Pu-239, -240, Pu-238, and Am-241 are reported as total radionuclides. All U

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b				
06491	Bedrock	GW05002TE	04/08/96	1,1,1,2- Tetrachloroethane	1	1				
				1,1,1- Trichloroethane	1	1				
				1,1,2,2- Tetrachloroethane	1	1				
				1,1,2- Trichloroethane	1	1				
				1,1- Dichloroethene	1	1				
				1,1- Dichloropropene	1	1				
				1,2,3- Trichlorobenzene	1	1				
				1,2,3- Trichloropropane	1	1				
				1,2,4- Trichlorobenzene	1	1				
				1,2- Dibromoethane	1	1				
				1,2- Dichlorobenzene	1	1				
				1,2- Dichloroethane	1	1				
				1,2- Dichloropropane	1	1				
				1,3- Dichlorobenzene	1	1				
				1,3- Dichloropropane	1	1				
				1,4- Dichlorobenzene	1	1				
				Benzene	1	1				
				Benzene, 1,2,4- Trimethyl-	1	1				
				Benzene, 1,3,5- Trimethyl-	1	1				
				Bromobenzene	1	1				
				Bromochloromethane	1	1				
				Bromodichloromethane	1	1				
				Bromoform	1	1				
				Bromomethane	1	1				
				Carbon Tetrachloride	1	1				
				Chlorobenzene	1	1				
				Chloroethane	1	1				
				Chloroform	1	1				
				Chloromethane	1	1				
				Cis, 1,2- Dichloroethene-	1	1				
				Cis, 1,3- Dichloropropene-	1	1				
				Cumene	1	1				
				Dibromochloromethane	1	1				
				Dibromomethane	1	1				
				Dichlorodifluoromethane	1	1				
				Ethylbenzene	1	1				
				Hexachlorobutadiene	1	1				
				Methylene Chloride	1	1				
				N- Butylbenzene	1	1				
				N- Propylbenzene	1	1				
				Naphthalene	1	1				
				O- Chlorotoluene	1	1				
				P- Chlorotoluene	1	1				
				P- Cymene	1	1				
				Propane, 1,2- Dibromo- 3- Chloro-	1	1				
				1				Sec- Butylbenzene	1	1
								Sec- Dichloropropane	1	1
								Styrene	1	1
								Tert- Butylbenzene	1	1
								Tetrachloroethene	1	1
								Toluene	1	1
								Total Xylenes	1	1
								Trans- 1,2- Dichloroethene	1	1
								Trans- 1,3- Dichloropropene	1	1
1				Trichloroethene	1	1				
				Trichlorofluoromethane	1	1				
				Vinyl Chloride	1	1				

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b				
41691	Alluvium	GW05019TE	05/02/96	1,1,1,2- Tetrachloroethane	1	1				
				1,1,1- Trichloroethane	1	1				
				1,1,2,2- Tetrachloroethane	1	1				
				1,1,2- Trichloroethane	1	1				
				1,1- Dichloroethane	1	1				
				1,1- Dichloroethene	1	1				
				1,1- Dichloropropene	1	1				
				1,2,3- Trichlorobenzene	1	1				
				1,2,3- Trichloropropane	1	1				
				1,2,4- Trichlorobenzene	1	1				
				1,2- Dibromoethane	1	1				
				1,2- Dichlorobenzene	1	1				
				1,2- Dichloroethane	1	1				
				1,2- Dichloropropane	1	1				
				1,3- Dichlorobenzene	1	1				
				1,3- Dichloropropane	1	1				
				1,4- Dichlorobenzene	1	1				
				Benzene	1	1				
				Benzene, 1,2,4- Trimethyl-	1	1				
				Benzene, 1,3,5- Trimethyl-	1	1				
				Bromobenzene	1	1				
				Bromochloromethane	1	1				
				Bromodichloromethane	1	1				
				Bromoform	1	1				
				Bromomethane	1	1				
				Carbon Tetrachloride	1	1				
				Chlorobenzene	1	1				
				Chloroethane	1	1				
				Chloroform	1	1				
				Chloromethane	1	1				
				Cis- 1,2- Dichloroethene	1	1				
				Cis- 1,3- Dichloropropene	1	1				
				Cumene	1	1				
				Dibromochloromethane	1	1				
				Dibromomethane	1	1				
				Dichlorodifluoromethane	1	1				
				Ethylbenzene	1	1				
				Hexachlorobutadiene	1	1				
				Methylene Chloride	1	1				
				N- Butylbenzene	1	1				
				N- Propylbenzene	1	1				
				Naphthalene	1	1				
				O- Chlorotoluene	1	1				
				P- Chlorotoluene	1	1				
				P- Cymene	1	1				
				Propane, 1,2- Dibromo- 3- Chloro-	1	1				
				1				Sec- Butylbenzene	1	1
								Sec- Dichloropropane	1	1
								Styrene	1	1
								Tert- Butylbenzene	1	1
				Tetrachloroethene	1	1				
				Toluene	1	1				
				Total Xylenes	1	1				
				Trans- 1,2- Dichloroethene	1	1				
				Trans- 1,3- Dichloropropene	1	1				
1				Trichloroethene	1	1				
				Trichlorofluoromethane	1	1				
				Vinyl Chloride	1	1				

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
41591	Alluvium	GW05205TE	07/30/96	1,1,1,2-Tetrachloroethane	1	1
				1,1,1-Trichloroethane	1	1
				1,1,2,2-Tetrachloroethane	1	1
				1,1,2-Trichloroethane	1	1
				1,1-Dichloroethane	1	1
				1,1-Dichloroethene	1	1
				1,1-Dichloropropene	1	1
				1,2,3-Trichlorobenzene	1	1
				1,2,3-Trichloropropane	1	1
				1,2,4-Trichlorobenzene	1	1
				1,2-Dibromoethane	1	1
				1,2-Dichlorobenzene	1	1
				1,2-Dichloroethane	1	1
				1,2-Dichloropropane	1	1
				1,3-Dichlorobenzene	1	1
				1,3-Dichloropropane	1	1
				1,4-Dichlorobenzene	1	1
				Benzene	1	1
				Benzene, 1,2,4-Trimethyl-	1	1
				Benzene, 1,3,5-Trimethyl-	1	1
				Bromobenzene	1	1
				Bromochloromethane	1	1
				Bromodichloromethane	1	1
				Bromoform	1	1
				Bromomethane	1	1
				Carbon Tetrachloride	1	1
				Chlorobenzene	1	1
				Chloroethane	1	1
				Chloroform	1	1
				Chloromethane	1	1
				Cis-1,2-Dichloroethene	1	1
				Cis-1,3-Dichloropropene	1	1
				Cumene	1	1
				Dibromochloromethane	1	1
				Dibromomethane	1	1
				Dichlorodifluoromethane	1	1
				Ethylbenzene	1	1
				Hexachlorobutadiene	1	1
				Methylene Chloride	1	1
				N-Butylbenzene	1	1
				N-Propylbenzene	1	1
				Naphthalene	1	1
				O-Chlorotoluene	1	1
				P-Chlorotoluene	1	1
				P-Cymene	1	1
				Propane, 1,2-Dibromo-3-Chloro-	1	1
				Sec-Butylbenzene	1	1
				Sec-Dichloropropane	1	1
				Styrene	1	1
				Tert-Butylbenzene	1	1
Tetrachloroethene	1	1				
Toluene	1	1				
Total Xylenes	1	1				
Trans-1,2-Dichloroethene	1	1				
Trans-1,3-Dichloropropene	1	1				
Trichloroethene	1	1				
Trichlorofluoromethane	1	1				
Vinyl Chloride	1	1				

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
6491	Bedrock	GW05183TE	08/ 19/ 96	1,1,1,2- Tetrachloroethane	102 ^c	
				1,1,1- Trichloroethane	100 ^c	
				1,1,2,2- Tetrachloroethane	101 ^c	
				1,1,2- Trichloroethane	113 ^c	
				1,1- Dichloroethane	95 ^c	
				1,1- Dichloroethene	108 ^c	
				1,1- Dichloropropene	1	1
				1,2 Dichloroethane - D4	1	1
				1,2,3- Trichlorobenzene	1	1
				1,2,3- Trichloropropane	1	1
				1,2,4- Trichlorobenzene	1	1
				1,2- Dibromoethane	1	1
				1,2- Dichlorobenzene	1	1
				1,2- Dichloroethane	1	1
				1,2- Dichloropropane	1	1
				1,3- Dichlorobenzene	1	1
				1,3- Dichloropropane	1	1
				1,4- Dichlorobenzene	1	1
				2,2- Dichloropropane	1	1
				4- Isopropyltoluene	1	1
				Benzene	1	1
				Benzene, 1,2,4- Trimethyl	1	1
				Benzene, 1,3,5- Trimethyl	1	1
				Bromobenzene	1	1
				Bromochloromethane	1	1
				Bromodichloromethane	1	1
				Bromofluorobenzene	1	1
				Bromoform	1	1
				Bromomethane	1	1
				Carbon Tetrachloride	1	1
				Chlorobenzene	1	1
				Chloroethane	1	1
				Chloroform	1	1
				Chloromethane	1	1
				Cis- 1,2- Dichloroethene	1	1
				Cis- 1,3- Dichloropropene	1	1
				Dibromochloromethane	1	1
				Dibromomethane	1	1
				Dichlorodifluoromethane	1	1
				Ethylbenzene	1	1
				Hexachlorobutadiene	1	1
				Isopropylbenzene	1	1
Methylene Chloride	1	1				
N- Butylbenzene	1	1				
N- Propylbenzene	1	1				
Naphthalene	1	1				
O- Chlorotoluene	1	1				
P- Chlorotoluene	1	1				
Propane, 1,2- Dibromo- 3- Chloro-	1	1				
1						
				Sec- Butylbenzene	1	1
				Styrene	1	1
				Tert- Butylbenzene	1	1
				Tetrachloroethene	1	1
				Toluene	1	1
				Toluene - D8	1	1
				Total Xylenes	1	1
				Trans- 1,2- Dichloroethene	1	1
1				Trans- 1,3- Dichloropropene	1	1
				Trichloroethene	1	1
				Trichlorofluoromethane	1	1
				Vinyl Chloride	1	1

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
10394	Alluvium	GW05189TE	08/26/96	1,1,1,2-Tetrachloroethane	1	1
				1,1,1-Trichloroethane	1	1
				1,1,2,2-Tetrachloroethane	1	1
				1,1,2-Trichloroethane	1	1
				1,1-Dichloroethane	1	1
				1,1-Dichloroethene	1	1
				1,1-Dichloropropene	1	1
				1,2-Dichloroethane - D4	1	1
				1,2,3-Trichlorobenzene	1	1
				1,2,3-Trichloropropane	1	1
				1,2,4-Trichlorobenzene	1	1
				1,2-Dibromoethane	1	1
				1,2-Dichlorobenzene	1	1
				1,2-Dichloroethane	1	1
				1,2-Dichloropropane	1	1
				1,3-Dichlorobenzene	0.2	1
				1,3-Dichloropropane	1 ^c	1
				1,4-Dichlorobenzene	101 ^c	1
				2,2-Dichloropropane	105 ^c	1
				4-Isopropyltoluene	106 ^c	1
				Benzene	103 ^c	1
				Benzene, 1,2,4-Trimethyl	97 ^c	1
				Benzene, 1,3,5-Trimethyl	99 ^c	1
				Bromobenzene	97	1
				Bromochloromethane	1	1
				Bromodichloromethane	1	1
				Bromofluorobenzene	1	1
				Bromoform	1	1
				Bromomethane	1	1
				Carbon Tetrachloride	1	1
				Chlorobenzene	1	1
				Chloroethane	1	1
				Chloroform	1	1
				Chloromethane	1	1
				Cis-1,2-Dichloroethene	1	1
				Cis-1,3-Dichloropropene	1	1
				Dibromochloromethane	1	1
				Dibromomethane	1	1
				Dichlorodifluoromethane	1	1
				Ethylbenzene	1	1
				Hexachlorobutadiene	1	1
				Isopropylbenzene	1	1
				Methylene Chloride	1	1
				N-Butylbenzene	1	1
				N-Propylbenzene	1	1
				Napthalene	1	1
				O-Chlorotoluene	1	1
				P-Chlorotoluene	1	1
				Propane, 1,2-Dibromo-3-Chloro-	1	1
				1		
				Sec-Butylbenzene	1	1
				Styrene	1	1
				Tert-Butylbenzene	1	1
				Tetrachloroethene	1	1
				Toluene	1	1
				Toluene - D8	1	1
				Total Xylenes	1	1
				Trans-1,2-Dichloroethene	1	1
				Trans-1,3-Dichloropropene	1	1
1						
				Trichloroethene	1	1
				Trichlorofluoromethane	1	1
				Vinyl Chloride	1	1

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
41691	Alluvium	GW05206TE	09/19/96	1,1,1,2- Tetrachloroethane	1	1
				1,1,1- Trichloroethane	1	1
				1,1,2,2- Tetrachloroethane	1	1
				1,1,2- Trichloroethane	1	1
				1,1- Dichloroethane	1	1
				1,1- Dichloroethene	1	1
				1,1- Dichloropropene	1	1
				1,2 Dichloroethane - D4	1	1
				1,2,3- Trichlorobenzene	1	1
				1,2,3- Trichloropropane	1	1
				1,2,4- Trichlorobenzene	1	1
				1,2- Dibromoethane	1	1
				1,2- Dichlorobenzene	1	1
				1,2- Dichloroethane	1	1
				1,2- Dichloropropane	1	1
				1,3- Dichlorobenzene	1	1
				1,3- Dichloropropane	1	1
				1,4- Dichlorobenzene	1	1
				2,2- Dichloropropane	1	1
				4- Isopropyltoluene	1	1
				Benzene	1	1
				Benzene, 1,2,4- Trimethyl	1	1
				Benzene, 1,3,5- Trimethyl-	1	1
				Bromobenzene	1	1
				Bromochloromethane	1	1
				Bromodichloromethane	1	1
				Bromofluorobenzene	1	1
				Bromoform	1	1
				Bromomethane	1	1
				Carbon Tetrachloride	1	1
				Chlorobenzene	1	1
				Chloroethane	1	1
				Chloroform	1	1
				Chloromethane	1	1
				Cis- 1,2- Dichloroethene	1	1
				Cis- 1,3- Dichloropropene	1	1
				Dibromochloromethane	1	1
				Dibromomethane	1	1
				Dichlorodifluoromethane	1	1
				Ethylbenzene	1	1
				Hexachlorobutadiene	1	1
				Isopropylbenzene	1	1
				Methylene Chloride	1	1
				N- Butylbenzene	1	1
				N- Propylbenzene	1	1
				Napthalene	1	1
				O- Chlorotoluene	1	1
				P- Chlorotoluene	1	1
				Propane, 1,2- Dibromo- 3- Chloro-	1	1
				1		
				Styrene	1	1
				Tert- Butylbenzene	1	1
				Tetrachloroethene	1	1
				Toluene	1	1
				Toluene - D8	1	1
				Total Xylenes	1	1
				Trans- 1,2- Dichloroethene	1	1
				Trans- 1,3- Dichloropropene	1	1
1				Trichloroethene	1	1
				Trichlorofluoromethane	1	1
				Vinyl Chloride	1	1

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
386	Bedrock	GW05180TE	09/24/96	1,1,1,2-Tetrachloroethane	1	1
				1,1,1-Trichloroethane	1	1
				1,1,2,2-Tetrachloroethane	1	1
				1,1,2-Trichloroethane	1	1
				1,1-Dichloroethane	1	1
				1,1-Dichloroethene	1	1
				1,1-Dichloropropene	1	1
				1,2-Dichloroethane - D4	1	1
				1,2,3-Trichlorobenzene	1	1
				1,2,3-Trichloropropane	1	1
				1,2,4-Trichlorobenzene	1	1
				1,2-Dibromoethane	1	1
				1,2-Dichlorobenzene	1	1
				1,2-Dichloroethane	1	1
				1,2-Dichloropropane	1	1
				1,3-Dichlorobenzene	1	1
				1,3-Dichloropropane	1	1
				1,4-Dichlorobenzene	1	1
				2,2-Dichloropropane	1	1
				4-Isopropyltoluene	1	1
				Benzene	1	1
				Benzene, 1,2,4-Trimethyl	1	1
				Benzene, 1,3,5-Trimethyl-	1	1
				Bromobenzene	1	1
				Bromochloromethane	1	1
				Bromodichloromethane	1	1
				Bromofluorobenzene	1	1
				Bromoform	1	1
				Bromomethane	1	1
				Carbon Tetrachloride	1	1
				Chlorobenzene	1	1
				Chloroethane	1	1
				Chloroform	1	1
				Chloromethane	1	1
				Cis-1,2-Dichloroethene	1	1
				Cis-1,3-Dichloropropene	1	1
				Dibromochloromethane	0.5	1
				Dibromomethane	1	1
				Dichlorodifluoromethane	1	1
				Ethylbenzene	1	1
				Hexachlorobutadiene	1	1
				Isopropylbenzene	1	1
				Methylene Chloride	1	1
				N-Butylbenzene	1	1
				N-Propylbenzene	1	1
				Naphtalene	1	1
				O-Chlorotoluene	1	1
P-Chlorotoluene	1	1				
Propane, 1,2-Dibromo-3-Chloro-	1	1				
1				Sec-Butylbenzene	1	1
				Styrene	1	1
				Tert-Butylbenzene	1	1
				Tetrachloroethene	1	1
				Toluene	1	1
				Toluene - D8	1	1
				Total Xylenes	1	1
				Trans-1,2-Dichloroethene	1	1
				Trans-1,3-Dichloropropene	1	1
1				Trichloroethene	1	1
				Trichlorofluoromethane	1	1
				Vinyl Chloride	1	1

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
386	Bedrock	GW05278TE	09/24/96	1,1,1,2- Tetrachloroethane	1	1
				1,1,1- Trichloroethane	1	1
				1,1,2,2- Tetrachloroethane	1	1
				1,1,2- Trichloroethane	1	1
				1,1- Dichloroethane	1	1
				1,1- Dichloroethene	1	1
				1,1- Dichloropropene	1	1
				1,2 Dichloroethane - D4	1	1
				1,2,3- Trichlorobenzene	1	1
				1,2,3- Trichloropropane	1	1
				1,2,4- Trichlorobenzene	1	1
				1,2- Dibromoethane	1	1
				1,2- Dichlorobenzene	1	1
				1,2- Dichloroethane	1	1
				1,2- Dichloropropane	1	1
				1,3- Dichlorobenzene	1	1
				1,3- Dichloropropane	1	1
				1,4- Dichlorobenzene	1	1
				2,2- Dichloropropane	1	1
				4- Isopropyltoluene	1	1
				Benzene	1	1
				Benzene, 1,2,4- Trimethyl	1	1
				Benzene, 1,3,5- Trimethyl-	1	1
				Bromobenzene	0.2	1
				Bromochloromethane	1	1
				Bromodichloromethane	1	1
				Bromofluorobenzene	1	1
				Bromoform	1	1
				Bromomethane	1	1
				Carbon Tetrachloride	1	1
				Chlorobenzene	1	1
				Chloroethane	1	1
				Chloroform	1	1
				Chloromethane	1	1
				Cis- 1,2- Dichloroethene	1	1
				Cis- 1,3- Dichloropropene	1	1
				Dibromochloromethane	1	1
				Dibromomethane	1	1
				Dichlorodifluoromethane	1	1
				Ethylbenzene	0.2	1
				Hexachlorobutadiene	1	1
				Isopropylbenzene	1	1
				Methylene Chloride	1	1
				N- Butylbenzene	1	1
				N- Propylbenzene	1	1
				Naphthalene	1	1
				O- Chlorotoluene	1	1
				P- Chlorotoluene	1	1
				Propane, 1,2- Dibromo- 3- Chloro-	1	1
				1		
				Sec- Butylbenzene	1	1
				Styrene	1	1
				Tert- Butylbenzene	1	1
				Tetrachloroethene	1	1
				Toluene	1	1
				Toluene - D8	1	1
				Total Xylenes	1	1
				Trans- 1,2- Dichloroethene	1	1
				Trans- 1,3- Dichloropropene	1	104
				Trichloroethene	1	1
				Trichlorofluoromethane	1	1
				Vinyl Chloride	1	1

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b				
386	Bedrock	GW05330TE	10/25/96	1,1,1,2- Tetrachloroethane	1	1				
				1,1,1- Trichloroethane	1	1				
				1,1,2,2- Tetrachloroethane	1	1				
				1,1,2- Trichloroethane	1	1				
				1,1- Dichloroethane	1	1				
				1,1- Dichloroethene	1	1				
				1,1- Dichloropropene	1	1				
				1,2 Dichloroethane - D4	1	1				
				1,2,3- Trichlorobenzene	1	1				
				1,2,3- Trichloropropane	1	1				
				1,2,4- Trichlorobenzene	1	1				
				1,2- Dibromoethane	1	1				
				1,2- Dichlorobenzene	1	1				
				1,2- Dichloroethane	1	1				
				1,2- Dichloropropane	1	1				
				1,3- Dichlorobenzene	1	1				
				1,3- Dichloropropane	1	1				
				1,4- Dichlorobenzene	1	1				
				2,2- Dichloropropane	1	1				
				4- Isopropyltoluene	1	1				
				Benzene	1	1				
				Benzene, 1,2,4- Trimethyl	1	1				
				Benzene, 1,3,5- Trimethyl-	1	1				
				Bromobenzene	1	1				
				Bromochloromethane	1	1				
				Bromodichloromethane	1	1				
				Bromofluorobenzene	1	1				
				Bromoform	1	1				
				Bromomethane	1	1				
				Carbon Tetrachloride	1	1				
				Chlorobenzene	1	1				
				Chloroethane	1	1				
				Chloroform	1	1				
				Chloromethane	1	1				
				Cis- 1,2- Dichloroethene	1	1				
				Cis- 1,3- Dichloropropene	1	1				
				Dibromochloromethane	1	1				
				Dibromomethane	1	1				
				Dichlorodifluoromethane	1	1				
				Ethylbenzene	1	1				
				Hexachlorobutadiene	1	1				
				Isopropylbenzene	1	1				
				Methylene Chloride	1	1				
				N- Butylbenzene	1	1				
				N- Propylbenzene	1	1				
				Naphthalene	1	1				
				O- Chlorotoluene	1	1				
				P- Chlorotoluene	1	1				
				Propane, 1,2- Dibromo- 3- Chloro-	1	1				
				1				Sec- Butylbenzene	1	1
								Styrene	1	1
								Tert- Butylbenzene	1	1
								Tetrachloroethene	1	1
								Toluene	1	1
								Toluene - D8	1	1
								Total Xylenes	1	1
								Trans- 1,2- Dichloroethene	1	1
								Trans- 1,3- Dichloropropene	1	1
				1				Trichloroethene	1	1
								Trichlorofluoromethane	1	1
								Vinyl Chloride	1	1

**Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)**

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
386	Bedrock	GW05331TE	10/25/96	1,1,1,2-Tetrachloroethane	1	1
				1,1,1-Trichloroethane	1	1
				1,1,2,2-Tetrachloroethane	1	1
				1,1,2-Trichloroethane	1	1
				1,1-Dichloroethane	1	1
				1,1-Dichloroethene	1	1
				1,1-Dichloropropene	1	1
				1,2-Dichloroethane - D4	1	1
				1,2,3-Trichlorobenzene	1	1
				1,2,3-Trichloropropane	1	1
				1,2,4-Trichlorobenzene	1	1
				1,2-Dibromoethane	1	1
				1,2-Dichlorobenzene	1	1
				1,2-Dichloroethane	1	1
				1,2-Dichloropropane	1	1
				1,3-Dichlorobenzene	1	1
				1,3-Dichloropropane	1	1
				1,4-Dichlorobenzene	1	1
				2,2-Dichloropropane	1	1
				4-Isopropyltoluene	1	1
				Benzene	1	1
				Benzene, 1,2,4-Trimethyl	1	1
				Benzene, 1,3,5-Trimethyl-	1	1
				Bromobenzene	1	1
				Bromochloromethane	1	1
				Bromodichloromethane	1	1
				Bromofluorobenzene	1	1
				Bromoform	1	1
				Bromomethane	1	1
				Carbon Tetrachloride	1	1
				Chlorobenzene	1	1
				Chloroethane	1	1
				Chloroform	1	1
				Chloromethane	1	1
				Cis-1,2-Dichloroethene	1	1
				Cis-1,3-Dichloropropene	1	1
				Dibromochloromethane	1	1
				Dibromomethane	1	1
				Dichlorodifluoromethane	1	1
				Ethylbenzene	1	1
				Hexachlorobutadiene	1	1
				Isopropylbenzene	1	1
				Methylene Chloride	1	1
				N-Butylbenzene	1	1
				N-Propylbenzene	1	1
				Napthalene	1	1
				O-Chlorotoluene	1	1
				P-Chlorotoluene	1	1
				Propane, 1,2-Dibromo-3-Chloro-	1	1
				1		
				Sec-Butylbenzene	1	1
				Styrene	1	1
				Tert-Butylbenzene	1	1
				Tetrachloroethene	1	1
				Toluene	1	1
				Toluene - D8	1	1
				Total Xylenes	1	1
				Trans-1,2-Dichloroethene	1	1
				Trans-1,3-Dichloropropene	1	107
				Trichloroethene	1	1
				Trichlorofluoromethane	1	1
				Vinyl Chloride	1	1

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
6491	Bedrock	GW05357TE	11/11/96	1,1,1,2- Tetrachloroethane	106 ^c	
				1,1,1- Trichloroethane	111 ^c	
				1,1,2,2- Tetrachloroethane	109 ^c	
				1,1,2- Trichloroethane	113 ^c	
				1,1- Dichloroethane	99 ^c	
				1,1- Dichloroethene	112 ^c	
				1,1- Dichloropropene	1	1
				1,2 Dichloroethane - D4	1	1
				1,2,3- Trichlorobenzene	1	1
				1,2,3- Trichloropropane	1	1
				1,2,4- Trichlorobenzene	1	1
				1,2- Dibromoethane	1	1
				1,2- Dichlorobenzene	1	1
				1,2- Dichloroethane	1	1
				1,2- Dichloropropane	1	1
				1,3- Dichlorobenzene	1	1
				1,3- Dichloropropane	1	1
				1,4- Dichlorobenzene	1	1
				2,2- Dichloropropane	1	1
				4- Isopropyltoluene	1	1
				Benzene	1	1
				Benzene, 1,2,4- Trimethyl	1	1
				Benzene, 1,3,5- Trimethyl	1	1
				Bromobenzene	1	1
				Bromochloromethane	1	1
				Bromodichloromethane	1	1
				Bromofluorobenzene	1	1
				Bromoform	1	1
				Bromomethane	1	1
				Carbon Tetrachloride	1	1
				Chlorobenzene	1	1
				Chloroethane	1	1
				Chloroform	1	1
				Chloromethane	1	1
				Cis- 1,2- Dichloroethene	1	1
				Cis- 1,3- Dichloropropene	1	1
				Dibromochloromethane	1	1
				Dibromomethane	1	1
				Dichlorodifluoromethane	1	1
				Ethylbenzene	1	1
				Hexachlorobutadiene	1	1
Isopropylbenzene	1	1				
Methylene Chloride	1	1				
N- Butylbenzene	1	1				
N- Propylbenzene	1	1				
Naphthalene	1	1				
O- Chlorotoluene	1	1				
P- Chlorotoluene	1	1				
Propane, 1,2- Dibromo- 3- Chloro-	1	1				
1				Sec- Butylbenzene	1	1
				Styrene	1	1
				Tert- Butylbenzene	1	1
				Tetrachloroethene	1	1
				Toluene	1	1
				Toluene - D8	1	1
				Total Xylenes	1	1
				Trans- 1,2- Dichloroethene	1	1
1				Trans- 1,3- Dichloropropene	1	1
				Trichloroethene	1	1
				Trichlorofluoromethane	1	1
				Vinyl Chloride	1	1

*Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)*

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b				
41691	Alluvium	GW05386TE	11/14/96	1,1,1,2- Tetrachloroethane	1	1				
				1,1,1- Trichloroethane	1	1				
				1,1,2,2- Tetrachloroethane	1	1				
				1,1,2- Trichloroethane	1	1				
				1,1- Dichloroethane	1	1				
				1,1- Dichloroethene	1	1				
				1,1- Dichloropropene	1	1				
				1,2 Dichloroethane - D4	1	1				
				1,2,3- Trichlorobenzene	1	1				
				1,2,3- Trichloropropane	1	1				
				1,2,4- Trichlorobenzene	1	1				
				1,2- Dibromoethane	1	1				
				1,2- Dichlorobenzene	1	1				
				1,2- Dichloroethane	1	1				
				1,2- Dichloropropane	1	1				
				1,3- Dichlorobenzene	1	1				
				1,3- Dichloropropane	1	1				
				1,4- Dichlorobenzene	1	1				
				2,2- Dichloropropane	1	1				
				4- Isopropyltoluene	1	1				
				Benzene	1	1				
				Benzene, 1,2,4- Trimethyl	1	1				
				Benzene, 1,3,5- Trimethyl-	1	1				
				Bromobenzene	1	1				
				Bromochloromethane	1	1				
				Bromodichloromethane	1	1				
				Bromofluorobenzene	1	1				
				Bromoform	1	1				
				Bromomethane	1	1				
				Carbon Tetrachloride	1	1				
				Chlorobenzene	1	1				
				Chloroethane	1	1				
				Chloroform	1	1				
				Chloromethane	1	1				
				Cis- 1,2- Dichloroethene	1	1				
				Cis- 1,3- Dichloropropene	1	1				
				Dibromochloromethane	1	1				
				Dibromomethane	1	1				
				Dichlorodifluoromethane	1	1				
				Ethylbenzene	1	1				
				Hexachlorobutadiene	1	1				
				Isopropylbenzene	1	1				
				Methylene Chloride	1	1				
N- Butylbenzene	1	1								
N- Propylbenzene	1	1								
Naphthalene	1	1								
O- Chlorotoluene	1	1								
P- Chlorotoluene	1	1								
Propane, 1,2- Dibromo- 3- Chloro-	1	1								
1				Sec- Butylbenzene	1	1				
				Styrene	1	1				
				Tert- Butylbenzene	1	1				
				Tetrachloroethene	1	1				
				Toluene	1	1				
				Toluene - D8	1	1				
				Total Xylenes	1	1				
				Trans- 1,2- Dichloroethene	1	1				
				Trans- 1,3- Dichloropropene	1	1				
				1				Trichloroethene	1	1
								Trichlorofluoromethane	1	1
								Vinyl Chloride	1	1

*Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)*

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
10394	Alluvium	GW05360TE	11/18/96	1,1,1,2-Tetrachloroethane	1	1
				1,1,1-Trichloroethane	1	1
				1,1,2,2-Tetrachloroethane	1	1
				1,1,2-Trichloroethane	1	1
				1,1-Dichloroethane	1	1
				1,1-Dichloroethene	1	1
				1,1-Dichloropropene	1	1
				1,2-Dichloroethane - D4	1	1
				1,2,3-Trichlorobenzene	1	1
				1,2,3-Trichloropropane	1	1
				1,2,4-Trichlorobenzene	1	1
				1,2-Dibromoethane	1	1
				1,2-Dichlorobenzene	1	1
				1,2-Dichloroethane	1	1
				1,2-Dichloropropane	1	1
				1,3-Dichlorobenzene	1	1
				1,3-Dichloropropane	1	1
				1,4-Dichlorobenzene	1	1
				2,2-Dichloropropane	1	1
				4-Isopropyltoluene	1	1
				Benzene	1	1
				Benzene, 1,2,4-Trimethyl	1	1
				Benzene, 1,3,5-Trimethyl-	1	1
				Bromobenzene	1	1
				Bromochloromethane	1	1
				Bromodichloromethane	1	1
				Bromofluorobenzene	1	1
				Bromoform	1	1
				Bromomethane	1	1
				Carbon Tetrachloride	1	1
				Chlorobenzene	1	1
				Chloroethane	1	1
				Chloroform	1	1
				Chloromethane	1	1
				Cis-1,2-Dichloroethene	1	1
				Cis-1,3-Dichloropropene	1	1
				Dibromochloromethane	1	1
				Dibromomethane	1	1
				Dichlorodifluoromethane	1	1
				Ethylbenzene	1	1
				Hexachlorobutadiene	1	1
				Isopropylbenzene	1	1
				Methylene Chloride	1	1
				N-Butylbenzene	1	1
				N-Propylbenzene	1	1
				Napthalene	1	1
				O-Chlorotoluene	1	1
P-Chlorotoluene	1	1				
Propane, 1,2-Dibromo-3-Chloro-	1	1				
Sec-Butylbenzene	1	1				
Styrene	2	1				
Tert-Butylbenzene	1	1				
Tetrachloroethane	1	1				
Toluene	1	1				
Toluene - D8	1	1				
Total Xylenes	1	1				
Trans-1,2-Dichloroethene	1	1				
Trans-1,3-Dichloropropene	1	1				
Trichloroethene	1	1				
Trichlorofluoromethane	0.5	1				
Vinyl Chloride	1	1				

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
41591		GW05385TE	11/25/96	1,1,1,2- Tetrachloroethane	1	1
				1,1,1- Trichloroethane	1	1
				1,1,2,2- Tetrachloroethane	1	1
				1,1,2- Trichloroethane	1	1
				1,1- Dichloroethane	1	1
				1,1- Dichloroethene	1	1
				1,1- Dichloropropene	1	1
				1,2 Dichloroethane - D4	1	1
				1,2,3- Trichlorobenzene	1	1
				1,2,3- Trichloropropane	1	1
				1,2,4- Trichlorobenzene	1	1
				1,2- Dibromoethane	1	1
				1,2- Dichlorobenzene	1	1
				1,2- Dichloroethane	1	1
				1,2- Dichloropropane	1	1
				1,3- Dichlorobenzene	1	1
				1,3- Dichloropropane	1	1
				1,4- Dichlorobenzene	100 ^c	
				2,2- Dichloropropane	100 ^c	
				4- Isopropyltoluene	100 ^c	
				Benzene	104	
				Benzene, 1,2,4- Trimethyl	101 ^c	
				Benzene, 1,3,5- Trimethyl-	100 ^c	
				Bromobenzene	99	
				Bromochloromethane	1	1
				Bromodichloromethane	1	1
				Bromofluorobenzene	1	1
				Bromoform	1	1
				Bromomethane	1	1
				Carbon Tetrachloride	1	1
				Chlorobenzene	1	1
				Chloroethane	1	1
				Chloroform	1	1
				Chloromethane	1	1
				Cis- 1,2- Dichloroethene	1	1
				Cis- 1,3- Dichloropropene	1	1
				Dibromochloromethane	1	1
				Dibromomethane	1	1
				Dichlorodifluoromethane	1	1
				Ethylbenzene	1	1
				Hexachlorobutadiene	1	1
				Isopropylbenzene	1	1
				Methylene Chloride	1	1
				N- Butylbenzene	1	1
				N- Propylbenzene	1	1
				Naphtalene	1	1
				O- Chlorotoluene	1	1
P- Chlorotoluene	1	1				
Propane, 1,2- Dibromo- 3- Chloro-		1				
1				Sec- Butylbenzene	1	1
				Styrene	1	1
				Tert- Butylbenzene	1	1
				Tetrachloroethene	1	1
				Toluene	1	1
				Toluene - D8	1	1
				Total Xylenes	1	1
				Trans- 1,2- Dichloroethene	1	1
				Trans- 1,3- Dichloropropene		1
1				Trichloroethene	1	1
				Trichlorofluoromethane	1	1
				Vinyl Chloride	1	1

Table 5-4 Organics Detected in Boundary Wells (2nd, 3rd, and 4th Quarters 1996)
(Continued)

Loc	Geology	Sample Number	Sample Date	Analyte	Result ^a (µg/L)	Detection Limit ^b
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^a Where there are no results listed, the following codes indicate the reason:

NN = Analysis Not Required
 NR = Analysis Not Received from Laboratory
 NS = Not Sampled
 NSD = No Sample Remained for Analysis

^b Detection limits are based on the contract required detection limit (CRDL) specified in General Radiochemistry and Routine Analytical Services Protocol (GRRASP) Version 2.1.

^c Reported results are from matrix spikes run as part of lab QA/QC process and are not actual results for these compounds. Actual concentrations are at or below detection.

Appendix A: Special Reporting

Table A-1 Plutonium-239 Concentrations in Ambient Air for Special Analysis Samplers

Location	On Date	Off Date	Flow (m ³)	Fine Conc (pCi/m ³)	Fine Error (pCi/m ³)	Coarse Conc (pCi/m ³)	Coarse Error (pCi/m ³)	Total Conc (pCi/m ³)	Total Error (pCi/m ³)
S-106	04/01/96	04/29/96	35492	0.0000290	0.0000017			0.00000360	0.0000032
				0.00000660	0.0000036				
S-106	04/29/96	05/20/96	27501	0.00000150	0.0000017		a	a	a a
S-106	05/20/96	07/01/96	54953	0.00000540	0.0000015			0.00000540	0.0000031
				0.00001080	0.0000034				
S-106	07/01/96	08/05/96	44982	0.00002110	0.0000045		a	a	a a
S-106	08/05/96	09/03/96	38219	0.00003180	0.0000071		a	a	a a
S-106	09/03/96	10/01/96	36261	0.00000580	0.0000027		a	a	a a
S-106	10/01/96	11/04/96	43515	0.00000740	0.0000025			0.00000620	0.0000024
				0.00001350	0.0000035				
S-109	04/01/96	04/29/96	35459	0.00005080	0.0000076		a	a	a a
S-109	04/29/96	05/20/96	27534	a	a		a	a	a
S-109	05/20/96	07/01/96	54893	0.00006280	0.0000089			0.00008260	0.0000161
				0.00014550	0.0000184				
S-109	07/01/96	08/05/96	45217	0.00005100	0.0000091		a	a	a a
S-109	08/05/96	09/03/96	38131	0.00003580	0.0000073		a	a	a a
S-109	09/03/96	10/01/96	36392	0.00001560	0.0000030		a	a	a a
S-119	04/01/96	04/29/96	36506	0.00000420	0.0000015		a	a	a a
S-119	04/29/96	05/20/96	27632	0.00000140	0.0000010		a	a	a a
S-119	05/20/96	07/01/96	42522	0.00000240	0.0000009		a	a	a a
S-119	07/01/96	08/05/96	45233	a	a		a	a	a
S-119	08/05/96	09/03/96	38001	0.00000890	0.0000022		a	a	a a
S-119	09/03/96	10/01/96	36397	0.00000440	0.0000014		a	a	a a
S-119	10/01/96	11/04/96	41655	0.00000280	0.0000013			0.00000450	0.0000022
				0.00000720	0.0000026				
S-137	04/02/96	04/30/96	36550	0.00000050	0.0000006		a	a	a a
S-137	04/30/96	05/21/96	28755	a	a		a	a	a
S-137	05/21/96	07/02/96	53709	0.00000460	0.0000027			0.00000190	0.0000020
				0.00000650	0.0000033				
S-137	07/02/96	08/05/96	45838	0.00000140	0.0000008		a	a	a a
S-137	08/05/96	09/03/96	38148	a	a		a	a	a
S-137	09/03/96	10/01/96	35322	a	a		a	a	a
S-137	10/01/96	11/05/96	45506	0.00000080	0.0000008			0.00000090	0.0000011
				0.00000170	0.0000014				
S-158	07/02/96	08/06/96	45686	0.00000120	0.0000009			0.00000000	0.0000006
				0.00000120	0.0000011				
S-158	08/06/96	09/04/96	37793	0.00000050	0.0000005			0.00000020	0.0000010
				0.00000070	0.0000011				
S-158	09/04/96	10/01/96	35355	-0.00000020	0.0000011			0.00000640	0.0000030
				0.00000620	0.0000032				
S-206	04/01/96	04/29/96	36670	a	a	a	a	a	a
S-206	04/29/96	05/20/96	27523	a	a	0.00000020	0.0000007 ^a	a	a
S-206	05/20/96	07/01/96	54975	a	a	a	a	a	a
S-206	07/01/96	08/05/96	45789	0.00001190	0.0000024		a	a	a a
S-206	08/05/96	09/03/96	38137	0.00000400	0.0000012		a	a	a a

^a Sample failed quality assurance criteria twice. No sample remains for rerun, no data will

Table A-2 Uranium-233, -234 Concentrations in Ambient Air for Special Analysis Samplers

Location	On Date	Off Date	Flow (m ³)	Fine Conc (pCi/m ³)	Fine Error (pCi/m ³)	Coarse Conc (pCi/m ³)	Coarse Error (pCi/m ³)	Total Conc (pCi/m ³)	Total Error (pCi/m ³)
S-106	04/01/96	04/29/96	35492	0.00001330	0.0000091	0.00002560	0.0000024		
				0.00003890	0.0000094				
S-106	04/29/96	05/20/96	27501	0.00001540	0.0000118	0.00002550	0.0000030		
				0.00004090	0.0000122				
S-106	05/20/96	07/01/96	54953	0.00002140	0.0000081	0.00002790	0.0000052		
				0.00004930	0.0000096				
S-106	07/01/96	08/05/96	44982	0.00013360	0.0000201	0.00022100	0.0000447		
				0.00035460	0.0000490				
S-106	08/05/96	09/03/96	38219	0.00003010	0.0000104	0.00005210	0.0000085		
				0.00008220	0.0000134				
S-106	09/03/96	10/01/96	36261	0.00004070	0.0000114	0.00005310	0.0000083		
				0.00009380	0.0000141				
S-106	10/01/96	11/04/96	43515	0.00000910	0.0000075	0.00003060	0.0000057		
				0.00003970	0.0000094				
S-109	04/01/96	04/29/96	35459	0.00000920	0.0000083	0.00001990	0.0000023		
				0.00002910	0.0000087				
S-109	04/29/96	05/20/96	27534	0.00002320	0.0000121	0.00003380	0.0000040		
				0.00005700	0.0000128				
S-109	05/20/96	07/01/96	54893	0.00001420	0.0000064	0.00001620	0.0000043		
				0.00003040	0.0000077				
S-109	07/01/96	08/05/96	45217	0.00004150	0.0000094	0.00005770	0.0000098		
				0.00009910	0.0000136				
S-109	08/05/96	09/03/96	38131	0.00001680	0.0000096	0.00002530	0.0000053		
				0.00004210	0.0000109				
S-109	09/03/96	10/01/96	36392	0.00002060	0.0000092	0.00002040	0.0000052		
				0.00004100	0.0000106				
S-119	04/01/96	04/29/96	36506	0.00001660	0.0000096	0.00002840	0.0000027		
				0.00004500	0.0000100				
S-119	04/29/96	05/20/96	27632	0.00001530	0.0000118	0.00002230	0.0000027		
				0.00003760	0.0000121				
S-119	05/20/96	07/01/96	42522	0.00001890	0.0000086	0.00002490	0.0000057		
				0.00004390	0.0000103				
S-119	07/01/96	08/05/96	45233	0.00002430	0.0000084	0.00003200	0.0000060		
				0.00005630	0.0000103				
S-119	08/05/96	09/03/96	38001	0.00002190	0.0000091	0.00002640	0.0000055		
				0.00004840	0.0000106				
S-119	09/03/96	10/01/96	36397	0.00005780	0.0000142	0.00007010	0.0000106		
				0.00012790	0.0000177				
S-119	10/01/96	11/04/96	41655	0.00001550	0.0000085	0.00002560	0.0000052		
				0.00004120	0.0000099				
S-137	04/02/96	04/30/96	36550	0.00001110	0.0000086	0.00001410	0.0000017		
				0.00002520	0.0000087				
S-137	04/30/96	05/21/96	28755	0.00002230	0.0000118	0.00002590	0.0000077		
				0.00004810	0.0000141				
S-137	05/21/96	07/02/96	53709	0.00000790	0.0000058	0.00001880	0.0000040		
				0.00002670	0.0000071				
S-137	07/02/96	08/05/96	45838	0.00003080	0.0000072	0.00002900	0.0000058		
				0.00005990	0.0000092				
^a No sample is available for uranium analysis because of previously requested plutonium									

Table A-3 Uranium-238 Concentrations in Ambient Air for Special Analysis Samplers

Location	On Date	Off Date	Flow (m ³)	Fine Conc (pCi/m ³)	Fine Error (pCi/m ³)	Coarse Conc (pCi/m ³)	Coarse Error (pCi/m ³)	Total Conc (pCi/m ³)	Total Error (pCi/m ³)
S-106	04/01/96	04/29/96	35492	0.00001280	0.0000083	0.00003090	0.0000027		
				0.00004380	0.0000088				
S-106	04/29/96	05/20/96	27501	0.00001230	0.0000106	0.00002470	0.0000029		
				0.00003700	0.0000110				
S-106	05/20/96	07/01/96	54953	0.00003870	0.0000100	0.00003920	0.0000067		
				0.00007790	0.0000120				
S-106	07/01/96	08/05/96	44982	0.00094960	0.0001159	0.00141800	0.0002672		
				0.00236760	0.0002912				
S-106	08/05/96	09/03/96	38219	0.00017000	0.0000264	0.00029850	0.0000383		
				0.00046850	0.0000465				
S-106	09/03/96	10/01/96	36261	0.00022060	0.0000312	0.00033320	0.0000406		
				0.00055380	0.0000513				
S-106	10/01/96	11/04/96	43515	0.00002130	0.0000087	0.00005410	0.0000086		
				0.00007550	0.0000123				
S-109	04/01/96	04/29/96	35459	0.00000740	0.0000074	0.00002240	0.0000025		
				0.00002980	0.0000078				
S-109	04/29/96	05/20/96	27534	0.00002450	0.0000113	0.00003170	0.0000038		
				0.00005620	0.0000119				
S-109	05/20/96	07/01/96	54893	0.00001640	0.0000062	0.00002630	0.0000059		
				0.00004280	0.0000086				
S-109	07/01/96	08/05/96	45217	0.00017140	0.0000223	0.00028040	0.0000395		
				0.00045190	0.0000453				
S-109	08/05/96	09/03/96	38131	0.00004740	0.0000126	0.00006650	0.0000106		
				0.00011390	0.0000164				
S-109	09/03/96	10/01/96	36392	0.00009140	0.0000154	0.00010950	0.0000176		
				0.00020100	0.0000234				
S-119	04/01/96	04/29/96	36506	0.00001740	0.0000090	0.00003550	0.0000031		
				0.00005290	0.0000095				
S-119	04/29/96	05/20/96	27632	0.00001680	0.0000110	0.00002030	0.0000025		
				0.00003720	0.0000113				
S-119	05/20/96	07/01/96	42522	0.00002450	0.0000086	0.00002410	0.0000055		
				0.00004860	0.0000102				
S-119	07/01/96	08/05/96	45233	0.00010690	0.0000169	0.00011940	0.0000173		
				0.00022630	0.0000242				
S-119	08/05/96	09/03/96	38001	0.00006830	0.0000130	0.00008000	0.0000124		
				0.00014830	0.0000180				
S-119	09/03/96	10/01/96	36397	0.00020360	0.0000320	0.00025490	0.0000325		
				0.00045850	0.0000456				
S-119	10/01/96	11/04/96	41655	0.00001870	0.0000086	0.00003440	0.0000063		
				0.00005300	0.0000106				
S-137	04/02/96	04/30/96	36550	0.00000980	0.0000077	0.00001530	0.0000018		
				0.00002510	0.0000079				
S-137	04/30/96	05/21/96	28755	0.00001850	0.0000105	0.00002550	0.0000076		
				0.00004400	0.0000129				
S-137	05/21/96	07/02/96	53709	0.00001430	0.0000058	0.00001930	0.0000041		
				0.00003360	0.0000071				
S-137	07/02/96	08/05/96	45838	0.00013260	0.0000197	0.00012500	0.0000185		
				0.00025760	0.0000271				
S-137	08/05/96	09/03/96	38148	0.00001490	0.0000079	0.00001830	0.0000046		
^a No sample is available for uranium analysis because of previously requested plutonium									